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ABSTRACT

A handicapped person's choice of accessible arts activities is very limited. This report focuses on the people and places now developing facility, planning, and program solutions that enable the handicapped to participate in the arts to their fullest potential. The 131 stories about outstanding facilities and programs, current legislation, and technical and design consultants serve as a foundation on which other schools, art institutions, and community centers can build a humane, totally accessible environment for the arts. The appendixes contain resource material including partial lists of nature centers, trails, and fragrance gardens, and of agencies that are interested in removing architectural barriers to the handicapped and that have produced literature on the subject, and a selected bibliography on barrier-free design. (Author/MLF)

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Arts and the Handicapped

An Issue of Access

A Report from Educational Facilities Laboratories and the National Endowment for the Arts

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The National Endowment for the Arts was established by Congress in 1965 to foster the growth and development of the arts in the United States to preserve and enrich the nation's cultural resources, and to provide opportunities for wider experience in all the arts.

National Endowment For The Arts
Nancy Hanks, *Chairman*

The Architecture + Environmental Arts Program was created to support exemplary design efforts and to stimulate active public interest in the quality of the built environment through grants to individuals and nonprofit organizations, in the fields of architecture, planning, landscape architecture, interior and industrial design.

National Endowment For The Arts, Architecture + Environmental Arts
Bill N. Lacy, *Director*

Educational Facilities Laboratories is a nonprofit corporation established in 1958 by The Ford Foundation to encourage and guide constructive change in education and related facilities.

Educational Facilities Laboratories
Harold B. Gores, *President*
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This project is supported with a contract from the National Endowment for the Arts in Washington, D.C., a federal agency.

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Foreword

Since its creation ten years ago, the National Endowment for the Arts has worked toward three main goals: strengthening cultural organizations; preserving our cultural legacy; and encouraging wider availability of the arts. This latter ideal has been interpreted most often in terms of touring dance companies, repertory theatres, and museum collections. The emphasis has been on making art treasures and talent available to the widest audience possible.

The endowment has taken major steps to bring the arts into the lives of individuals for whom the experience of the arts has been limited, sporadic and, in some cases, non-existent. Yet, despite the Endowment's success in this regard, there is still a large segment of the population—the handicapped—who have difficulty participating in and experiencing even those arts activities which occur in their own neighborhoods and cities.

In view of this, the National Endowment for the Arts, advised by the National Council for the Arts, has made a commitment toward helping to eliminate the barriers—both physical and social—which prevent millions of handicapped Americans from enjoying the arts on a regular and meaningful basis.

As the Endowment's involvement with this effort has progressed, the magnitude of the problem has presented itself more and more, especially when one realizes that most of us at one time or another in our lives are in some way handicapped. The woman with a baby carriage, the elderly, the very young, the temporarily disabled sports casualty—these and many others constitute a large and ever changing percentage of Americans who do not have full command of their physical abilities. The period in which any of us is perfectly mobile and physically and mentally unimpaired is relatively short, nonetheless our world has been created largely for this perfect person.

This book is all about the creation of cultural facilities and programs for all the people called handicapped—a group to which we all belong to some degree. It is an outgrowth of the Endowment's commitment towards helping to increase the accessibility of the arts to the handicapped and is one of our first joint ventures with Educational Facilities Laboratories to create an information network in this field. The Endowment has recently engaged EFL to continue the effort begun with this book through the creation of a national information service on the arts and the handicapped. As part of this service EFL will continue to publish information about outstanding facilities and programs, current legislation, technical and design consultants, and other information in response to demands from the field.

We are pleased to be working with Educational Facilities Laboratories in this important endeavor and to have contributed to the development of this document. We sincerely hope that its message will be helpful in creating a humane, totally accessible environment for the arts.

Nancy Hanks
Chairman
National Endowment for the Arts

Introduction

EFL believes that the arts are essential to the education and development of all people and that no person should be deprived access to services and activities because of a handicap. Since we have already published reports on arts facilities and planning for the handicapped, it is logical that EFL now speaks out on an issue that combines both.

Most people do not readily associate the arts with the handicapped. Or, when combining both, they think of recreation or art therapy. Despite the public's lack of awareness, there are and have been many handicapped professional artists — musicians, painters, dancers, playwrights, and sketch artists who are blind, emotionally disturbed, deaf, crippled, and retarded. Artists like these overcame their handicaps, but, more important, they overcame or detoured around barriers that inhibited their involvement in arts activities which were accessible to nonhandicapped people. Nevertheless, the vast majority of handicapped people still perceive the arts as an inconvenient obstacle course strewn with rules, regulations, revolving doors, and inaccessible opportunities.

By universal agreement, a "handicapped" person has a speech, hearing or vision problem, may be learning disabled, crippled, or mentally or emotionally disturbed. There are no certain figures for the number of handicapped people in the United States. Estimates range from one out of every eleven working adults ages 16 to 64 according to a 1970 U.S. Census Bureau sampling which excluded children and the elderly, to one out of every four, or 51.1 million, Americans according to a 1971 National Center for Health Statistics survey which excluded institutionalized and military populations. Additionally, the Council for Exceptional Children estimates that one out of every ten school-age children is handicapped and it is reasonable to assume that many people over age 64 and the major portion of those living in institutions are also handicapped. Therefore, while there are no definitive figures for the total number of handicapped people, it is certain that inaccessible facilities restrict and impair a remarkably large number of United States citizens.

Today, a handicapped person's choice of accessible arts activities is very limited. There are laws against such inequities but they have not been adequately enforced. On the other hand, civil rights for the handicapped is a vigorous and growing legal movement in the United States. As the movement gathers momentum, virtually hundreds of organizations of and for the handicapped are challenging institutions and businesses which do not serve them – not excepting cinemas, studios, churches, schools, museums, theaters, and sports arenas.

Accessibility to the arts implies the removal of any barrier which hinders or excludes potential patrons. These include architectural barriers such as steps, curbs, narrow walkways, small or hard-to-open doors, inaccessible toilet facilities, too-high drinking fountains, telephones and light switches, and the lack of elevators and accommodations for wheelchairs, and attitudinal barriers such as fixed admission requirements, literacy tests, prerequisite credentials, safety codes, insurance restrictions, placement procedures or, simply, preconceived notions about the safety and desirability of having handicapped people involved.

This report focuses on the people and places now developing facility, planning, and program solutions to the problem of arts for the handicapped. None has completely solved the problem. Nonetheless, we believe that the 121 stories told here are a solid foundation on which other schools, art institutions, and community centers can build better solutions to a growing problem.

Larry Molloy, an architect and EFL project director, researched and wrote this report with assistance from Vicki Moses, a teacher and EFL research assistant. According to their findings, the scope of the problem is immense; it certainly cannot be solved by ramps alone. Rather, the solution lies in the removal of architectural and attitudinal barriers in conjunction with the development of new facilities and interagency programs that enable the handicapped to participate in the arts to their fullest potential. It is not an investment without dividends. Evidence shows that the results produce improved facilities and programs that are more effective and more often used by all people.

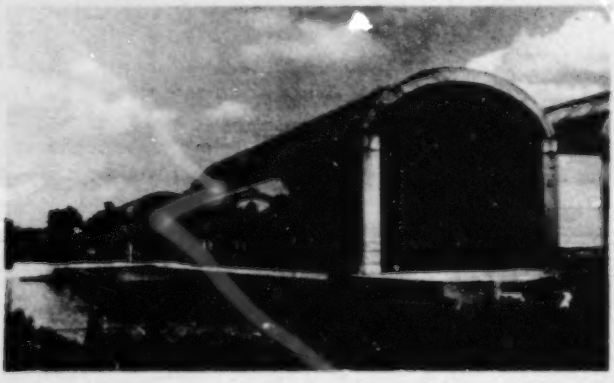
The movement of services and programs away from the great institutions and toward community-based facilities affects both the arts and the handicapped. Federal courts have ruled that segregated services do not adequately serve the handicapped and most state legislatures have mandated public schools to provide an appropriate education for all students. As a result, new waves of handicapped people are moving out of institutions, rehabilitation centers, and special schools into hostels, group homes, day services and the everyday classroom. In a similar fashion, the great art institutions, reacting to a growing awareness that the arts are a right not a privilege of all people, are establishing satellite centers in schools, storefronts, and found space in the community. In addition, independent associations for the handicapped and local artists cooperatives are building new community-based housing, schools, and studio workshops.

Despite their similarities, however, the disciplines of the arts and handicapped services have not joined Community facilties for the handicapped, for example, rarely house continuing programs and workshops for the arts. Conversely, new facilities for the arts are rarely accessible to the handicapped and rarely provide special programs and conveniences for the handicapped. In short, handicapped people, a significant portion of the United States population, are not provided with nor have access to the arts.

Pace-setting designs for the physically handicapped

A few, mostly new, arts facilities are beginning to establish programs, techniques, and tools that make the arts readily available to the handicapped. The designers and directors of these facilities faced problems with attitudes, mass transit, parking, staffing, lack of information and people who forcibly object to accessibility for the handicapped. Most objections to designing for the physically handicapped are based on one of three premises: that facilities for the handicapped are costly, that a single barrier-free facility is futile in a society riddled with architectural barriers, or that meticulous attention to facilities for the handicapped impair the architect's ability to design creatively.

The most obvious objection to accessibility for the handicapped is that the additional equipment may increase the cost of proposed arts facilities during a period when fund raising is especially difficult. The Kimbell Art Museum in Fort Worth, Texas, however, came to the opposite conclusion. During preliminary planning the museum's director, Richard Brown, steadfastly opposed any

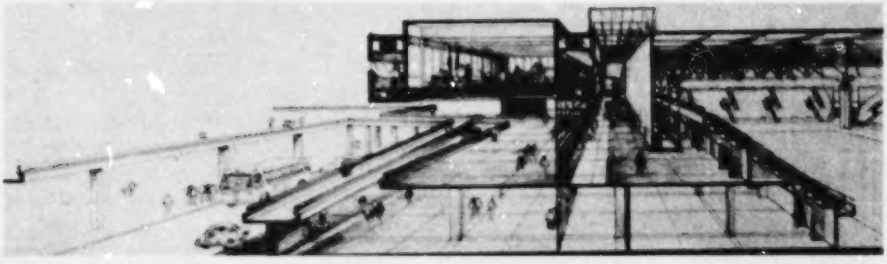


design that included barriers to the physically handicapped or the aged. Working with their architect, Louis Kahn, the museum planning committee developed a design that incorporated absolutely no extra construction for accommodating the handicapped. Instead, specifications called for no level or threshold changes on floors or between the building and its site. Appropriate elevators, doors, and other hardware were chosen for the convenience of handicapped and elderly patrons. The architect proposed 100 x 20 ft cycloid vaults which produced large, individual column-free rooms ideal for maneuvering walkers, wheelchairs, and strollers. Also the design included an open-vaulted portico at the museum's entrance for use as a covered drive-in entrance to unload extra passengers or wheelchairs, as well as open porches for sitting, strolling, and outdoor sculpture. As a result of the design and careful selection of materials and equipment, the Kimbell Art Museum cost no more than the projected budget yet remained accessible to the handicapped and equally convenient to the aged and women with young children. The museum's administration is especially pleased with the result. According to Richard Brown, "Thoughtful design costs less and results in facilities which serve all people."

Although the museum is not entirely barrier-free – there are ordinary phones, drinking fountains, and a small inaccessible library mezzanine – it is a house policy to display artifacts for the enjoyment of all. Instead of standard display cases, for example, special custom-made pedestals, tables, and adjustable easels exhibit a variety of art objects low enough for wheelchairs and children and are visible from all angles. The museum also computed the average eye-level heights of wheelchairs and children as their over-all display policy. Paintings, for example, are hung 52 inches off the floor instead of the customary 72 inches. Although freestanding displays and low-hung paintings may involve a potential risk, the Kimbell Art Museum has operated without accident for more than two years. The American Institute of Architects recognized the museum's design accessibility by awarding it the Bartlett Award, "for providing access and usability for handicapped persons" – one out of four buildings to receive the honor award for 1974-75. □ *Write: Richard Brown, Director, Kimbell Art Museum, P.O. Box 9440, Fort Worth, Tex. 76107.*

Another often-cited objection to accessible design is that individual construction projects do not significantly affect the over-all urban environment. Critics point out that even if a new building is barrier-free, local parking facilities, pedestrian thoroughfares, and mass transit are not, and thus the building remains inaccessible to most handicapped people. Binghamton, New York tackled the whole problem of urban accessibility in a bold design for the city which links government centers, commercial establishments, arts facilities, parking garages, and social services together with the Broome County Veterans Memorial Arena, a multipurpose cultural center for sports, concerts, shows, and public spectator activities.

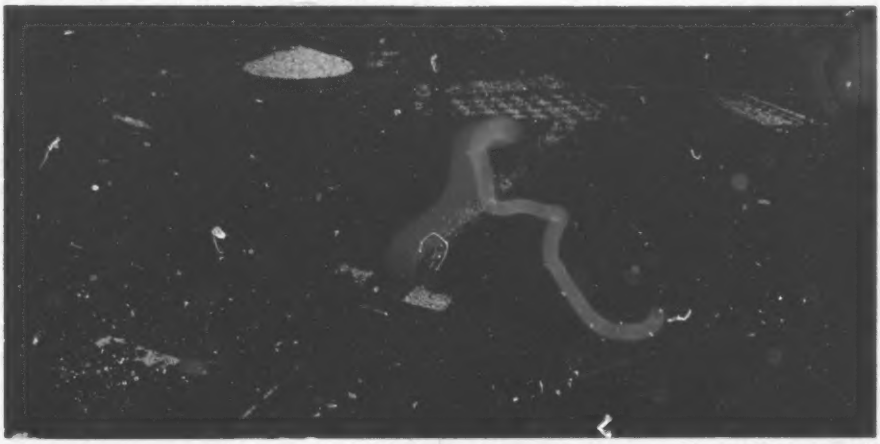
When the Binghamton Urban Renewal Agency hired an architectural firm, Werner Seligmann, Associates, in 1968, to develop a master plan for the central city, the need for a county-wide cultural center and facilities that serve the handicapped were fraternal criteria for the selection of a second level plaza and bridge system separating pedestrians from vehicular traffic. By 1972, the city, state, and private developers had completed three interlocking projects which launched the second level system: a commercial plaza; a government concourse including city, county, and state buildings atop a barrier-free, multilevel parking garage; and the new memorial arena with a linear gallery housing community meeting rooms.



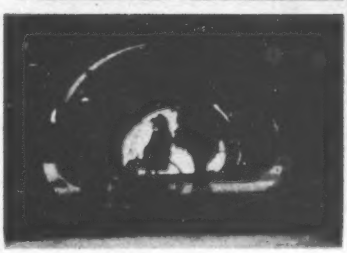
"There is no question that the marriage of government buildings with arts facilities and commercial spaces is good for the city," said Binghamton's Director of Planning, Robert Eronimous. "It has stimulated unprecedented interest in developing the downtown area." Under construction, a new performing arts theater two blocks away from the auditorium will eventually link in to the second level pedestrian system. A hotel/restaurant complex adjoining the auditorium is now in planning and by granting developers the air rights over an existing street, a covered bridgeway containing small retail stores will link a new retail mall and additional parking facilities. According to the city planning department, the master plan envisions a second level, barrier-free pedestrian system covering the entire downtown area and accessible to wheelchairs via elevators and ramps. Ultimately, Binghamton may become the first barrier-free inner city designed for the physically handicapped. □ *Write: Robert Eronimous, Director of Planning, Community Development Department, City Hall, Government Plaza, Binghamton, N.Y. 13901.*

Simple barrier-free design also changes a handicapped person's attitude toward and involvement in arts and spectator activities. The Broome County Veterans Memorial Arena, an integral part of Binghamton's downtown second level system, welcomes handicapped patrons and receives them professionally. Aware of this intent, the architects, the ELS Design Group, treated the arena and its entranceway as separate but complementary statements. The arena, a simple metal-clad box visually floating above a ground level berm, reads as an identifiable activity center. At its entrance, the gallery structure including lobbies, ramps, meeting rooms, and service areas is concrete like the pedestrian plaza and announces the building's accessibility to and kinship with the over-all pedestrian system. As a result of barrier-free design, "handicapped people are participating in the arena's activities," reports the center's director, Charles Theokas, "and have become increasingly involved with the various special interest, social service and community organizations which meet here." Apparently, the new facility is also generating good will and a new enthusiasm for the cultural center. "All my feedback so far is very positive." □ *Write: Charles Theokas, Dir.of Administration, Broome County Veterans Memorial Arena, Stuart Place, Binghamton,N.Y. 13902.*

Some critics also complain that design for the handicapped stifles creativity and freedom of expression. They often cite a conflicting array of rules and regulations about heights, access, hardware, and fire exits. In at least one new arts facility, design for the handicapped became a foundation on which architects, artists, and display designers developed what is perhaps the most creative participatory arts and environmental learning facility in existence.



Launched in 1899, the Brooklyn Children's Museum was the first institution of its kind in the world. In 1968 the museum moved out of two Victorian mansions in Brower Park into an interim facility known as MUSE — a converted automobile showroom and pool hall. Today, the BCM is back in Brower Park in a concrete box sunk 40 ft into the ground, with the park landscape rolling around and over the top of the building almost hiding it from view. According to the building's architects, Hardy, Holzman, Pfeiffer Associates, "A building in a New York park is aggressive because it takes away land; we decided to bury the building and put the park on top of it."

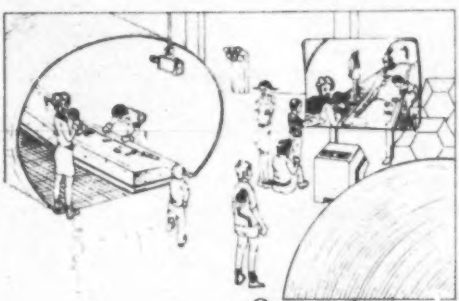


At first glance, the building's interior does not at all appear to be designed for the handicapped; it is a huge staircase of levels stepping down 40 ft from the roof. On closer inspection, however, the museum was evidently designed not specifically for children's handicaps but to celebrate the mobility of all children. A giant, 200 ft ramp

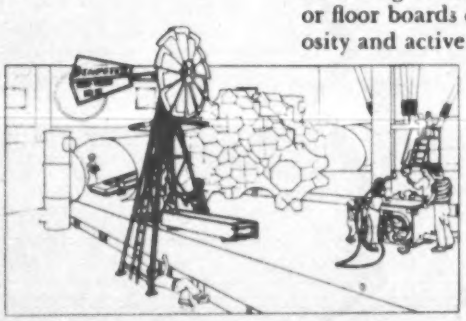
enclosed in a steel water culvert runs diagonally across the entire space from the main entrance just below roof level to a sunken courtyard outside. A stream with a waterwheel, swing gate, sluiceway, hydraulic turbine, archimedes' screw, and a pool for sailboats and play flows along one side of the culvert. Designed specifically for access by handicapped children, the ramp features oversized controls plus ample clearance for wheelchairs. For access to other participatory environments, a landing interrupts the stream and ramp at each level. An elevator also serves every level except the roof.

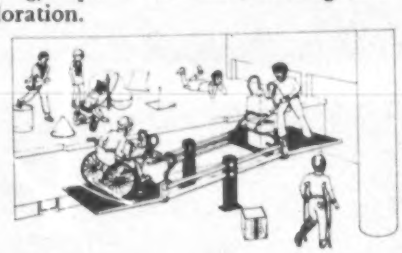
The museum is, "unlike any installation anywhere in the United States," says Lloyd Hezekiah, museum director. In an attempt to integrate the physical and environmental sciences with culture and the arts, its purpose is, "to invite children, whoever they are and wherever they come from . . . to discover their own abilities, curiosity and sense of themselves in the world . . . to link children with the human past, their own present, and the future." To accomplish this goal, the BCM staff together with Edwin Schlossberg, a physicist and designer, and Brent Saville, a museum design consultant, created a "participatory learning environment" – a series of displays, tools, and artifacts keyed to the exploration of five theme areas: Self, Earth, Air, Fire, and Water.

Children enter the building through a restored subway kiosk on the roof into the first level designed to explore their biological, anthropological and cultural Self.



On a projection screen, children see themselves entering through the ramped culvert and interacting with the water stream to one side. Here, an array of scales, measures, charts and body tracing – a dial machine that projects full-scale figures of children from other countries, encourages children to develop a full self concept in terms of weight, height, reach, and color for use as constants in later explorations. The equipment is also designed for use by emotionally disturbed and mentally retarded children with underdeveloped sense of self, physical appearance, and body in relation to the environment. For partially sighted, hearing impaired and normal children as well, a fiber-optic probe (a video magnifier to see inside ears, eyes, mouth and head) and an audio exploration probe (a microphone that amplifies the sounds of speech, the heart, breathing or the sounds of moving water, gears meshing or floor boards creaking) expand the senses, inciting curiosity and active exploration.





While the stream running down the ramped culvert explores water forces, the remaining levels similarly explore Fire, Air, and Earth, terminating in a natural sciences area with a touch-see-hear pond and natural habitat stocked with fish, turtles and various indigenous wildlife. Along the way, children, using their bodies as constants, explore and use the tools and natural forces with which our different cultures were fashioned: windmills pumping water, hydraulic turbines generating low-voltage electricity, wind generators flying kites, powering the windmill or operating a calliope, hydraulic pumps and air pressure lifts raising and lowering children (and wheelchairs) from one level to the next, steam engines powering other engines; plus freezers, greenhouses, solar generators, ripple tanks, musical instruments, and a great neon helix running down the ramped culvert and the visible light spectrum from red to violet. Unlike San Francisco's Exploratorium, the Brooklyn Children's Museum does not specify what children must do nor how tools should be used. Instead, tools and artifacts are displayed so that their use is obvious and to encourage spontaneous experimentation. □ *Write: Brent Saville, Saville Design, Museum Design Consultants, 218 Madison Ave., N.Y., N.Y. 10016.*

Handrails throughout the main exhibition area provide a tactile mapping system for both sighted as well as partially and nonsighted children. Graphic representations of manual communication symbols used by the deaf are also utilized through the building and the museum has nine staff members who have studied manual communication language for the deaf.

In addition to the four levels of the participatory learning environment or main exhibition area, the museum also contains a multipurpose room (known as The Commons), a special orientation area for introducing preschool and severely handicapped children in a low-keyed manner to the rest of the museum and its resources, a sales area, and, an assembly space called The Tank — really a large oil tank. On the fifth or lowest level there are workshops for arts and sciences that allow children to delve more deeply into the museum's resources and activities, a dance studio, photography darkrooms, and, a take-home collection and "children only" resource library.

On the rooftop park, which serves as a performance space, playground and open laboratory, there is an outdoor amphitheater, a free-form graffiti wall, a catwalk, a barn silo used as a fire exit, and a highway sign highlighting the museum's name. At this writing, the building is constructed but the interior is not finished. There are also some unnecessarily awkward toilets and circulation routes for the handicapped. Nevertheless, the museum's director feels that such problems can easily be corrected before the museum's anticipated opening in late 1975. "The Brooklyn Children's Museum will be a place for children of all ages to explore themselves and their environment to their full potential, regardless of their sex, race or handicaps." □ *Write: Lloyd Hezekiah, Director, Brooklyn Children's Museum, 145 Brooklyn Avenue, Brooklyn, N.Y. 11213.*

Legal Implications

Despite these few enlightened centers, most American arts programs do not serve the handicapped, in particular, those who most need the arts – the elderly, the homebound, and the new wave of mentally and physically handicapped people now living in community facilities. For the art world, such discrimination against handicapped citizens may have a profound impact on continued financial support. The Architectural Barriers Act of 1968, (Public Law 90-480) for example, requires that any new public facility (excepting privately owned residential structures and military facilities designed primarily for able-bodied personnel) benefiting from whole or partial federal financing must be fully accessible to all handicapped persons. In addition, existing facilities undergoing major renovation supported by federal funding must provide for accessibility and usability by the handicapped. Although enforcement has been spotty in the past, a quasi-independent agency, the Architectural and Transportation Barriers Compliance Board, was established in 1973 to assure compliance with the 1968 act. The board has the authority to withhold funds from any agency failing to comply with the law's intent. It is likely, therefore, that designs of future arts facilities must meet minimum accessibility standards. ☐ *Write: Stanley B. Thomas, Chairman, Architectural and Transportation Barriers Compliance Board, Washington, D.C. 20201.*

Federal regulations affect more than new construction. Section 504 of the 1973 Rehabilitation Act (Public Law 93-112) states that, "no otherwise qualified handicapped person in the United States . . . shall, solely by reason of his handicap be excluded from participating in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Broadly defined, the law means that any federally supported activity must not exclude handicapped people because facilities are inaccessible. It also means that if federally supported lectures, art education programs, displays, or performances are open to the public and if there is a handicapped constituency, then arts agencies must also make allowances for the blind and the deaf. It is also likely, therefore, that printed material must be available in braille and that a sign linguist or a hearing device must interpret lectures for the deaf. Regulations for complying with section 504 are available from HEW's Office of Civil Rights for the Handicapped. ☐ *Write: Edward Lynch, Office of Civil Rights for the Handicapped, Room 3460-N, Dept. of HEW, 330 Independence Avenue, S.W., Washington, D.C. 20201.*

At the state level, new regulations for the removal of architectural barriers are becoming increasingly strict. Although most states have passed some form of legislation requiring accessibility for the handicapped in new construction, 14 states (Connecticut, Illinois, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, New Mexico, New York, Oregon, Texas, Virginia, and Washington) also require barrier-free design in projects that remodel public facilities. In addition, eight states (California, Illinois, Iowa, Massachusetts, Michigan, North Carolina, Washington, and Wisconsin) require architectural accessibility in new privately owned facilities that are to be used by the public. Most of these laws adopt the American National Standards Institute's "Standards for

Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped" (A117.1), available ($2.75) from the American National Standards Institute, 1430 Broadway, New York, N.Y. 10018.

A survey of state legislation to remove architectural barriers is available (free) from the President's Committee on Employment of the Handicapped, Committee on Barrier-Free Design, Washington, D.C. 20210.

Unwilling to rely on state enforcement, many cities are passing local ordinances that require the removal of architectural barriers. South Bend, Indiana is a particularly outstanding example. Due to the efforts of Councilman Roger Parent, the city council approved an Architectural Barriers Ordinance (#5475-73) in 1973. The ordinance prohibits the city building department from issuing building permits for any new construction or any remodeling projects involving 50% reconstruction which are not accessible to and functional for the physically handicapped and the aged. It applies to all public buildings, medical facilities, schools, assemblies, churches, apartments, cultural centers, arts facilities, museums, theaters, movie houses, recreation facilities, hotels, motels, and any facility that normally admits spectators. The ordinance contains explicit standards for ramps, elevators, portals, parking, site accessibility and all public accommodations such as toilets, telephones, and drinking fountains. An interesting evolution in the theory of accessibility, the ordinance also contains special provisions for accommodating the hard-of-hearing. Calling for equal participation in all performance or spectator activities, the law requires a minimum of three conveniently located hearing devices that "come as close as possible to normalizing the hearing of persons with hearing disabilities to the extent that available marketed technology permits," for all assembly spaces with a capacity up to 50 and includes detailed specifications for larger assemblies. □ *Write: The Bureau of Buildings and Permits, 227 W. Jefferson Boulevard, Room 1300, South Bend, Ind. 46601.*

Obviously, there is a growing recognition of the rights of all handicapped people to full access and enjoyment of all public amenities. And all levels of government are participating in the movement to make facilities and programs accessible. In addition, there seems to be a clear evolution in the terms and conditions of accessibility. Simple barrier-free architecture is not sufficient to serve all handicapped people; the physically handicapped only comprise 18% of all congenital handicapping conditions. Clearly, governmental regulations are beginning to require a new dimension of facilities and programs that enhance every handicapped person's enjoyment and participation in public activities. Facilities, such as South Bend's hearing devices, play a key role in making programs and activities accessible. If people with other handicaps are to take full advantage of American arts, new kinds of facilities are needed. The problem is where to get information and how to pay for new equipment.

Incentives for accessibility

The law is the first incentive to design for accessibility. Beyond that, there is also some help on the horizon for agencies willing to remove architectural barriers or initiate new facilities for the handicapped. The General Services Administration, the federal agency responsible for constructing government facilities, is developing new per-

formance standards for compliance with the Accessibility Act of 1968. It is expected that these regulations will replace the ANSI Standards and include new specifications for making facilities accessible to the blind and deaf. In addition, the GSA is surveying the accessibility needs of 10,000 buildings constructed before 1968 in order to develop a renovation program to remove architectural barriers. ☐ *Write: Frank Matzke, Acting Assistant Commissioner for Construction Management, Public Buildings Service, General Services Administration, Washington, D.C. 20405.*

A publication, *Day on Wheels*, describing the impact of architectural barriers on handicapped citizens and including recommendations for change is available ($1.50) from the GSA Business Service Centers. ☐ *Write: Business Service Center, General Services Administration, 7th and D Streets, S.W., Washington, D.C. 20407.*

Standards, however, often only deal with general solutions to broad-based problems. Frequently, new construction projects need individual attention to solve particular problems. In order to help architects and administrators develop alternatives for accessible public facilities, several agencies provide information, consultant advice, and technical assistance for individual projects. ☐ *Write: James Jeffers, Executive Director, Architectural and Transportation Barriers Compliance Board, Room 1004, HEW South Building, 330 C St., S.W., Washington, D.C. 20201.* ☐ *Write: Office of Construction Management Public Buildings Service, General Services Administration, Washington, D.C. 20405.* ☐ *Write: Edward Noakes, President, National Center for a Barrier-Free Environment, 7315 Wisconsin Ave., N.W., Washington D.C. 20014.*

In addition to consultant services, there are two bills which may offer financial assistance for removing architectural barriers. One, the Housing and Community Development Act of 1974 (Public Law 93-383) offers grants and program assistance to state and local governments to help finance community development programs. Under Title I, Section 105 (a-5), "projects directed to the removal of material and architectural barriers which restrict the mobility and accessibility of elderly and handicapped persons," are eligible for assistance. ☐ *Write: the nearest regional HUD office or Department of Housing and Urban Development, 451 7th Street, S.W., Washington, D.C. 20410.*

In January, 1975, Congressman Nichols introduced the Freedom of Accessibility Act (H.R. 2342), which provides tax incentives for removing architectural barriers. Once passed, this act will amend the Internal Revenue Code to qualify architectural and transportational barrier removal expenses as tax deductible items. The state of North Carolina already has such a law. By and large, the state's loss of income is minor since barrier-free design normally costs very little when incorporated during initial construction. ☐ *Write: Congressman Bill Nichols, Rayburn House Office Building, Washington, D.C. 20515.*

"A Summary of Selected Legislation relating to the Handicapped 1974" is available (70¢) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

For financial resources and technical assistance, the Federal Council on the Arts and Humanities and the National Endowment for the Arts have developed a guide to federal funds and services for cultural activities. A surprising number of programs, grants, and technical assistance are available. For the "Cultural Directory," send

$4.00 to Associated Councils of the Arts, ACA Publications, 1564 Broadway, New York, N.Y. 10036.

Another incentive to design for the handicapped is the wealth of publications and agencies with specific details about the nuts and bolts of accessibility. The appendices to this publication contain lists of agencies that provide technical information on removing architectural barriers plus a selected bibliography.

Art not by eye alone

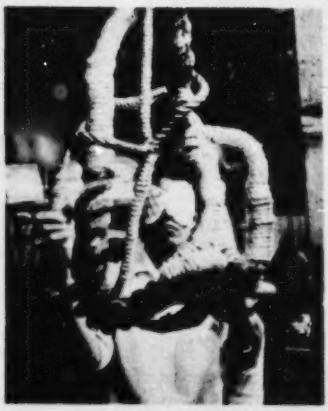
According to the National Center for Health Statistics, there are an estimated 51.1 million impairments in households (not including institutions and military facilities) across the United States. Among these handicaps, 9.6 million are visual impairments, and 14.5 million are hearing impairments. There are many millions more mentally or emotionally handicapped, learning disabled or physiologically impaired people. □ *Write: National Center for Health Statistics, 5600 Fishers Lane, Rockville, Maryland 20852.*

When handicaps other than physical disabilities are considered, accessibility obviously implies new facilities in addition to barrier-free architecture. With their blind and partially sighted patrons in mind, a few museums and art centers are establishing auxiliary touch and feel galleries which have become the origin of a new movement to make the arts more accessible to all people.

The following is a partial list of museums which have held temporary tactile exhibitions for the blind.

Smithsonian Institution
Houston Museum of Fine Arts
Indiana State Museum
Wooster Art Museum
Boston Museum of Fine Arts
Mississippi Arts Museum
Baltimore Museum of Art
Central Wyoming Museum of Art
Tucson Art Center
Oakland Museum
Denver Children's Museum
Cleveland Museum of Art
Mint Museum of Art, Charlotte, N.C.
North Carolina Museum of Life and Science
Art Institute of Chicago
Portland Art Museum
Brooklyn Museum
Columbia Museum of Art, South Carolina
Albright-Knox Art Gallery, Buffalo, N.Y.
Metropolitan Musuem of Art, N.Y., N.Y.

During 1971 and 1972, the California Arts Commission developed two unique touring exhibitions of tactile sculpture called "Perception" and "Dimension" aimed at bringing museum quality sculpture closer to both blind and sighted patrons. The commission designed a special modular exhibition touring system so that the entire display including sculpture, pedestals, display walls, and protective devices could be packaged for transportation and easy assembly in a tour of seven major California art centers. Each museum distributed braille kits in advance to schools and organizations to publicize the event. According to the commission, letters of appreciation from blind citizens poured in from every corner of the state and has prompted at least one county department of parks and



Using the works of 30 West Coast artists, the Los Angeles County Department of Parks and Recreation ran a traveling tactile exhibition for five years called Form in the Inner Eye. A blindfolded jury chose exhibits according to nonvisual stimuli. A tactile rope stretched between exhibits guided both the blind and blindfolded visitors through a series of sensory sculptures ending with a waterbed. ☐ *Write: Ed Nice, Cultural Section, County of Los Angeles Department of Parks and Recreation, 155 West Washington, Blvd., Los Angeles, Calif. 90015*

recreation (Los Angeles) to establish a traveling tactile gallery. For reports on the touring exhibit and further information, ☐ *Write: Michelle M. Kauffman, Technical Assistance Manager, California Arts Commission, 808 O Street, Sacramento, Calif. 95814.*

Although many arts centers have held temporary exhibits for the blind, a few such as Harvard University's Peabody Museum of Archeology and Ethnology and the University Museums at Illinois State University will set up touch and feel demonstrations on demand. Peabody has a standard kit of 20 pieces which are shown to all blind people but the Illinois State University's curators will tailor each presentation to the specific ages and disabilities of visually impaired groups of children and adults. These shows, however, are temporary exhibits shown at infrequent intervals. ☐ *Write: Museum Tours, Illinois State University Museums, Normal, Ill. 61761.* ☐ *Write: Sally Bond, Assistant Cataloger, Peabody Museum of Archeology and Ethnology, 11 Divinity Avenue, Harvard University, Cambridge, Mass. 02138.*

On a more permanent basis, the New Orleans Museum of Art has instituted a pilot program in which volunteers and guides take blind patrons around the museum to selected exhibitions. Specially trained in how to express size and composition to the blind, the guides help their visitors feel and understand various sculptural pieces, large and small, try on African masks, handle pre-Columbian and South American artifacts, and explore the textures and acoustics of many galleries with different floor and wall coverings. In addition, the museum intends to hire a movement teacher this summer to help both blind and sighted students develop dance and movement skills. According to the program's director, Bonnie Pitman, blind visitors are quite capable of participating in most museum activities. "Everything in the program is based on problem solving. The blind see and talk about seeing in a different way. You just have to learn how to see in their terms." ☐ *Write: Bonnie Pitman, Curator of Education, New Orleans Museum of Art, P.O. Box 19123, New Orleans, La. 70179.*

Other art centers, the University of Pennsylvania Museum of Art, for example, have established permanent tactile galleries specifically for the blind. Open only to the blind and an occasional kindergarten class, the Nevil Gallery keys circulation to a carpet trail that leads blind visitors from one display to the next. Signs in English and braille explain each exhibit and there is also an exhibition of works by blind artists (which cannot be touched). Despite these attractions, however, the Nevil Gallery only serves about 400 people each year; sighted patrons are not invited. ☐ *Write: Joe Minott, University Museum, 33rd and Spruce Streets, Philadelphia, Pa. 19174.*

Tactile galleries for the blind are not without their detractors. The American Foundation for the Blind issued a policy statement in 1972 criticizing the basic intent behind specialized, segregated facilities for blind and visually handicapped patrons.

> "Specialized gardens, trails, or museums often carry a psychological impact that is distasteful to the blind or otherwise visually impaired person who has a consciousness of the dignity of self. Further, such specialized facilities can perpetuate negative stereotypes of those of our citizens who are blind or otherwise visually impaired."

The statement goes on to conclude that, "it is unnecessary to have any special design specifically for the blind or visually impaired . . . as long as the areas are safe for everyone." If the many existing tactile galleries had resulted in segregating the blind from ordinary arts patrons, the latter statement might be true. However, as the following examples will show, designing for the blind and visually impaired usually leads to innovative programs and facilities which improve accessibility to the arts for all people, and, if anything, encourage a handicapped person's integration into mainstream society. Thus, the new designs for American tactile galleries meet the Foundation's policy criteria:

> "It is believed, therefore, that such facilities and experiences should be available to all persons in the community including visually impaired persons and not set aside or designated for the enjoyment of one special group."

☐ *Write: The American Foundation for the Blind, Inc., 15 West 16th Street, New York, N.Y. 10011.*

On the other side of the fence, tactile galleries are sometimes criticized by arts professionals. Some say that vision alone is enough to appreciate the arts. A few museum officials have objected to tactile art because they fear that artifacts will be at worst destroyed and at best soiled by repeated handling. Most existing tactile galleries, however, report that with careful supervision and proper maintenance, art objects are not damaged by many hands fondling. Nevertheless, at least three museums obviate the problem by providing replicas, facsimiles, and duplicates for their blind patrons. The Museum of Natural History in Urbana, Illinois, for example, lets visually impaired visitors feel duplicate artifacts, minerals and fossils during classes and between lectures. At times, even the sighted are included. The Newark Museum, on the other hand,

holds an annual "Touch and See" exhibit primarily for the handicapped but open to all in which tactile displays of transportation systems, buildings, and sculptures are labeled in braille. The Museum of the City of New York has a "Please Touch" reconstruction of a seventeenth century Dutch home in New Amsterdam that includes original antiques – butter churns, cooking utensils, spinning wheels and Queen Anne furniture – plus copies of period clothing. Children are encouraged to feel and use all the artifacts and may dress up in the clothing. During 13 years of constant handling, the children have damaged only one artifact. ☐ *Write: Harry C. Henriksen, The Museum of Natural History, University of Illinois, Urbana, Ill. 61801.* ☐ *Write: Sally Townsend, Newark Museum, 43-49 Washington Street, Newark, N.J. 07101.* ☐ *Write: Billy Nielson, Dean of Education, Museum of the City of New York, 1220 Fifth Avenue, New York, N.Y. 10029.*

To a greater degree, other arts institutions incorporate facilities for the handicapped into the regular museum programs. The Boston Children's Museum, for example, contains many manipulative displays which are used by all visitors including the blind. Also, the museum's curators intend to establish an exhibit on handicaps that will include prostheses such as wheelchairs, braces, artificial limbs and other devices which normal children may use and come to understand the hardships their handicapped peers must endure. The Children's Museum of Denver, newly housed in an old downtown warehouse, also features participatory learning exhibitions on science, music, media, ecology, computer technology, crafts and natural sciences. According to Lawrence Brown, the museum's director, "Most museums are browsing museums where people walk the halls and look. It's an aesthetic experience. Everything is behind glass and two dimensional. In order to have a real three-dimensional experience, it's necessary to have objects out here you can sense, touch and feel." Thus the museum accommodates handicapped children quite easily but, like the Boston Children's Museum, its doors close once a week to normal children for a special handicapped program. Despite their sensitivity to the handicapped, neither museum is barrier-free and there are few special accommodations for physically handicapped children. However, both museums intend to acquire barrier-free facilities within several years. ☐ *Write: Janet Kamien, The Children's Museum, the Jamaica Way, Boston, Mass. 02130.* ☐ *Write: Lawrence Brown, Director, Children's Museum of Denver, 931 Bannock Street, Denver, Colo. 80204.*

In a different way, the Krannert Art Museum at the University of Illinois accommodates their handicapped patrons by treating them like normal people. For the physically handicapped, the facility is barrier-free including an emergency fire ramp at the rear of the auditorium. For the blind, selected artifacts are displayed within easy reach, labeled in braille and may be touched.

Also, two permanent exhibits, nineteenth and twentieth century sculpture and eighteenth century furniture are specifically geared to blind visitors. Sculptures may be touched, seats may be sat in, drawers may be opened, finishes felt, and carving fondled. In addition, each piece is conveniently labeled in braille. Krannert also provides occasional supplementary exhibits for the blind and holds classes with a sign linguist for the hearing impaired. ☐ *Write: Muriel Christison, Director, Krannert Art Museum, 500 Peabody Drive, Champaign, Ill. 61820.*

The Touch-It Museum of the Philadelphia Museum of Art was designed not for the blind but for visitors of all ages to understand and appreciate eighteenth century antiques and artifacts. The office building, a dependency of the 1761 Mount Pleasant Mansion, is furnished with period antiques, appointments and homecraft devices – not replicas or facsimiles. Visitors are encouraged to handle all tools, use the furniture and touch everything. In fact, a few pieces may be disassembled for closer inspection and in order to examine joints, construction, and hidden detailing. Although the building is not accessible to the physically handicapped, many groups of blind children and adults visit the Touch-It Museum regularly. □ *Write: Lesley Moneta, Coordinator, Philadelphia Museum of Art, Box 7646, Philadelphia, Pa.19101.*

Other museums have established facilities for the blind which rapidly became part of the regular program. In 1966 the North Carolina Museum of Art, for example, opened the first in a series of American tactile galleries for the blind. With funds from a private foundation and planning by the North Carolina State University School of Design, the museum converted three existing exhibition spaces into the Mary Duke Biddle Gallery for the Blind. A special handrail inscribed with braille leads blind patrons through three rooms of constantly changing exhibits. Weaving and macramé adorn the walls for texture, a permanent collection of busts of famous people introduces the blind to celebrities and politicians they have only heard about before, variously textured sculptures describe different techniques and finishes, and, lo and behold, brightly colored (often abstract or impressionist) paintings hang under intense lighting. (Only 10% of the visually impaired population are stone blind; most have enough residual sight to appreciate graphic arts.) The museum also offers an educational program in the tactile gallery and regularly tours schools for blind children.

After its opening, the Biddle Gallery was so successful that the museum soon opened it to everyone. "We opened it up to sighted people as well to help close the communication gap between blind and normal," reports Maya Reid, the gallery's curator. "We found that normal kids with the whole world at their fingertips can satisfy through art their natural instinct to feel and manipulate."

Apparently the tactile gallery satisfies more than children. The Biddle Gallery serves between 15 and 20% of North Carolina's 12,000 visually impaired people – but logs as many as 10,000 visits a month. State officials seem impressed by the turnout. A state-supported institution, in 1971 the North Carolina state legislature incorporated funding for the Mary Duke Biddle Gallery into the museum's regular yearly appropriation. In addition, funds have been appropriated for a new barrier-free museum now in planning. □ *Write: Maya M. Reid, Curator, Mary Duke Biddle Gallery, North Carolina Museum of Art, Raleigh, N.C. 27611. Also reprints of articles on arts for the visually handicapped are available upon request.*

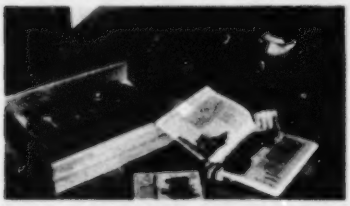
In Louisville, Kentucky, the J. B. Speed Art Museum houses a touch and see gallery organized and operated by volunteers. Guides, with cooperation from museum staff, technical advice from the American Printing House for the Blind, and funds for the Lions' Club, converted a basement space into a special tactile gallery also open to the public. Ten low, freestanding pedestals defined by pools of carpet compose the basic exhibition of tactile sculpture – including two pedestals reserved for local artists – but bright prints are also included. All works must be museum quality and the museum hires a conservation of fine arts laboratory to clean and maintain the displays. Like the Biddle Gallery, the J. B. Speed Touch and See Gallery generates public interest. Museum officials report that at least a third of the regular attendance also visit the gallery, not including a substantial number of schoolchildren both blind and sighted who use the gallery to supplement their school curriculum.
☐ *Write: The Touch and See Committee, J. B. Speed Art Museum, 2035 S. Third Street, Louisville, Ky. 40208.*

During planning and conceptual development, one tactile gallery for the blind developed into a multi-sensory kinesthetic facility for all people and all handicaps. In 1969, Hartford, Connecticut's Wadsworth Atheneum accepted a tactile gallery project proposed by the Connecticut Institute for the Blind. After a year's research, the program's emphasis shifted from substituting touch for sight to actively exploring many dimensions of the senses. A consortium of 43 Lions' Clubs raised enough money to cover three years operating expenses and the cost of converting a former museum store and combined library into a gallery of the senses for all people. The gallery, a 1500 sq ft L-shaped room containing an office, workroom, orientation lobby, a small permanent tactile sculpture display area, a 19 x 28 ft exhibition space, and a barrier-free toilet facility, is open to the public during museum hours and available to groups by appointment. Originally called the Tactile Gallery, its name was recently changed to the Lions' Gallery of the Senses in recognition of the Lions' initial and continued financial support.

Unlike many tactile galleries, the Atheneum's program is constantly changing. Exhibitions on the shape of sound, musical tactile sculpture, kinesthetic playgrounds, thermal and olfactory environments, and a dialogue of the senses – an exhibit where the sighted are blindfolded and along with the blind introduced to touch walls, fur-covered columns, air bags, thermal structures, and a musical floor – constantly challenge the visitor to explore a new dimension in nonvisual perception. The gallery's curator, Bette Leicach, reports that for sighted people the exhibits open their minds to the fact that they should further develop their senses. For the blind already adept at nonvisual perception, the program introduces them to the arts as a part of the human experience – for most, an acquaintance made for the first time in their lives. Interestingly, in exhibits where sighted people are blindfolded, the blind switch roles from followers to leaders and for a short time synthesize and interpret information for the sighted world. Thus blind people become aware of their unique capabilities and the sighted gain a keener insight into blindness.

Like the Biddle Gallery and the Speed Museum, the Atheneum's Lions' Gallery of the Senses is an unqualified popular success. Despite the fact that participation is limited to groups of 15 visitors at a time, museum officials report that the gallery is at least as popular as any

other exhibit and has significantly improved the museum's over-all attendance. Most are ordinary sighted people but many are physically or multiple handicapped; more than a third, of course, are visually impaired. Also, there has been a tremendous response from professional artists. Intrigued by nonvisual perception, artists have developed special shows in aural sculpture, kinesthetic movement, sensory environment, participatory playground and soundscape. Clearly, the Atheneum's gallery provides an experience missing in the lives of many people—ordinary patrons, the handicapped, artists, and museum officials alike. ☐ *Write: Bette Leicach, Curator, Lions' Gallery of the Senses, Wadsworth Atheneum, Hartford, Conn. 06103.*



On a different theme, centers for the environmental arts are bringing nature closer to all patrons with touch and feel demonstrations similar to the tactile galleries. In Florida, there are several new museums designed to give handicapped and normal children and adults hands-on experiences with the arts and natural history. On the University of Florida campus, the barrier-free Florida State Museum features an object gallery, a special exhibition with more than 5,000 artifacts, skins, stuffed animals and crafts in a hall complete with exhibits, books, pamphlets, taped lectures, films, and study carrels. In addition, a complete replica of a Florida cave invites potential spelunkers to experience the sensations, sounds, flora, fauna, and fossils of an indigenous natural environment. At the Jacksonville Children's Museum, exhibits are designed for direct sensory awareness and visitor involvement. In a giant open mouth, for example, children can walk on teeth to check for cavities while others sit on the tongue to watch educational films. Similarly, visitors can walk through a giant doll house or a human-sized camera to see how pictures are perceived and recorded on film. On nearly every wall, in every corner, nook and crevice, there is a gadget for curious energetic youngsters to pop hands into, walk up, slide through or listen to. Among the trails, compounds, farms, ponds, and buildings of the Tallahassee Junior Museum complex, the emphasis is on outdoor activities designed to acquaint visitors with the wonder and complex simplicity of Florida's natural environment and the pioneers who tamed it. Along the nature trails, for example, wild animals are encountered in their natural habitat while domestic animals may be petted and even checked out on loan for a day. In the Pioneer Farm, an exact copy of an early nineteenth century Florida farm, children are encouraged to milk cows, plow fields, make sugar cane syrup or climb into hayloft. Museums like these are noteworthy because their facilities and activities take the visitor, handicapped or normal, into a sensory environment in which everyone can find meaning and involvement. ☐ *Write: V. J. Gabianelli, Chairman, The Florida State Museum, Museum Road, University of Florida, Gainsville, Fla. 32601.* ☐ *Write: Doris Whitmore, Director, The Jacksonville Children's Museum, 1025 Gulf Life Drive, Jacksonville, Fla. 32207.* ☐ *Write: Sam Kates, Director, Tallahassee Junior Museum, 3945 Museum Drive, Tallahassee, Fla. 32304.*

The Environmental Centers, Inc., of Hartford, Connecticut, runs an environmental study area in Canton called the Roaring Brook Nature Center. A new barrier-free interpretive building contains a large classroom-auditorium with adjacent hands-on displays showing animals in typical Connecticut habitats. With abundant natural history outside the building, however, the main classroom is out-of-doors. Nature trails wide enough for wheelchairs and graded at safe angles cover 115 acres of woodland. At all times, children are encouraged to feel, rub, smell, and occasionally taste the products of nature. Blind children have always been considered. When the nature trails were been designed, Roaring Brook's former director, Whitney Beals, had developed a previous nature trail open only to the blind and coded in braille. After some initial interest, attendance slackened rapidly because most blind people desperately want to be treated normally and because only 12% of the blind read braille. Thus, the new trails were designed with tactile displays and teacher/naturalists accompany each group where everyone is encouraged to use all their senses whether handicapped or normal. ☐ *Write: Jay Kaplan, Naturalist Director, Roaring Brook Nature Center, 176 Gracey Road, Canton, Conn. 06019. Also the National Park Guide For The Handicapped #2405-0286 is available (40¢) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.*

See also the appendices for lists of nature centers, trails, and fragrance gardens accessible to handicapped visitors.

Museum education

Accessible facilities are not an end in themselves. They are, instead, the beginnings of an over-all process to readapt programs, procedures, and the environment to meet the needs of all people. Education is an important program in most American museums. The blind, for example, must be taught how to feel sculpture with their whole hand and how to conceptually integrate a sculptural composition. As the handicapped become increasingly involved, many educational programs and their facilities are upgraded to include techniques for the handicapped which eventually improve all programs.

Besides its Roaring Brook Nature Center, the Hartford Children's Museum, for example, offers an extensive school services program which includes handicapped children both from special schools and those mainstreamed into regular school classes. The museum likes to meet teachers first in order to adapt its regular education courses for groups with handicapped children. Programs include Natural Forces – demonstrations of energy, weather, gravity, electricity and magnetism; the Natural World – hands-on exhibits and dioramas of natural environments plus a collection of live birds, reptiles and mammals; Life in the Ocean – a salt water aquarium and an open classroom with twelve 200-gallon exhibit tanks for a wet-hands display of live plants and animals from

the Connecticut shore; and a Social Sciences program – a tour of the clothing, arts, cooking, music and religion of Oriental, American, Indian, and Colonial cultures. The latter program also includes three activity corners where students get involved in daily life experiences – making candles, grinding corn, carding wool, or dressing up in costumes according to the appropriate culture and historical period. Each of the three cultures also has an associated teaching garden. The museum includes handicapped children in all courses – the blind may feel models of the solar system during planetarium sessions for example – and most facilities are accessible to wheelchairs; the planetarium and aquarium were new additions specifically designed for the physically handicapped. □ *Write: Gail Collins, Program Coordinator, Children's Museum of Hartford, 950 Trout Brook Dr. West Hartford, Conn. 06119.*

In Nashville, Tennessee, the Cumberland Museum and Science Center's education department welcomes handicapped youngsters in all its programs and activities. Barrier-free facilities, special toilets, two elevators, and a planetarium accessible to wheelchairs make every subject offering accessible to physically handicapped children. The museum also stores an array of mounted animals and artifacts especially for visually impaired children to feel and handle. With several schools and hospitals in the area, the museum sees quite a few mentally retarded and emotionally disturbed children. The education department tailors special courses for them which include tactile objects and live animals. For all children, the Cumberland Museum offers programs in natural sciences, puppetry, environmental experiences, and astronomy. Completed in 1973, the new facility includes a live animal room, a puppet room, a planetarium, and an environmental experience room – a special multimedia presentation area with five projection screens and real artifacts to handle during the presentation. A nonprofit organization, the Cumberland Museum receives city and state support because it serves so many local- and state-operated schools. □ *Write: P. Kay Souder, Curator of Education, Cumberland Museum and Science Center, 800 Ridley Avenue, Nashville, Tenn. 37203.*

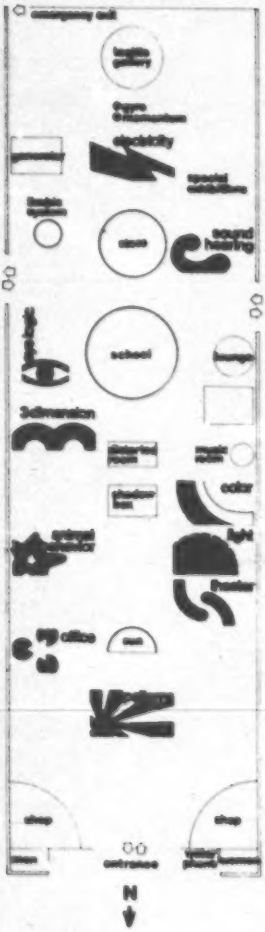
The Fort Worth Museum of Science and History is another "please touch," barrier-free facility which treats the handicapped like normal children. The difference is that the museum and Fort Worth Public Schools join forces and funds in order to operate the facility as a "museum/school." The school offers over 600 classes and workshops a year to 5,400 enrolled students aged 3 and up. In addition, there are 50 different levels of curriculum – coordinated school tours in science, history, astronomy and health, providing supplementary teaching to 94,000 school students each year. Although there are no special displays for blind children, most exhibits (including the Hall of Physiology which traces the history of modern medicine with three turn-of-the-century rooms depicting a doctor's office, a dentist's office and a drug dispensary, the Hall of Geology and the Hall of pre-Columbian and African Art) may be touched and manipulated. Also an extensive sound system provides 4½ hours of information and special sound effects. Therefore, schools for the handicapped and regular school groups with mainstreamed handicapped children can use the facility without impairing anyone's full appreciation of the program. □ *Write: Mrs. Herman G. Cox III, Experimental Art Chairman, Fort Worth Museum of Science and History, 1501 Montgomery Street, Fort Worth, Tex. 76107.*

By reaching handicapped children in their own environment, at least two museum outreach programs have significantly improved access to the arts. Cincinnati's Taft Museum, for example, has a special In-School Program in which trained volunteer "docents" take demonstrations and kits of materials into school classrooms, including many special education classes. Relating to the museum's collection, the program features painting, porcelain, enameling, and architecture. Aimed at a more specialized constituency, Little Rock's Arkansas Arts Center developed a pilot participatory arts program for severely physically handicapped children living in the Easter Seal Rehabilitation Center. Finding the children experientially deprived, the Arkansas Arts Center's art teachers, working with occupational therapists, designed a studio course using movies, slides, live animals, plants, flowers, shells, and feathers plus artwork loaned from the museum as motivational stimuli for the children who work mainly with drawing, painting, media, clay, printmaking, and collage. Periodically, both the Taft and the Arkansas programs bring handicapped children into the museum for special exhibitions. ☐ *Write: Katherine Hanna, The Taft Museum, 316 Pike Street, Cincinnati, Ohio 45202.* ☐ *Write: Rebecca Witsell, Director of Education, Arkansas Arts Center, P.O. Box 2137, Little Rock, Ark. 72203.*

Museum education also reaches adults and professional staff. The Philadelphia Museum of Art offers a special fine arts course to visually handicapped adults. With initial funding from the Neville Trust and continued support from the Yuber Trust, the museum conducts free studio classes once a week for 36 adults whose ages range from 18 to 80. Students meet for one hour in a studio at the Fleisher Art School and then visit various city galleries where they may handle and, in some cases, even see art under intense lighting. Course offerings include printmaking, collage, papier-mâché, sculpture, and art appreciation.

Called Form in Art, the project's coordinator, Sally Jones, emphasizes the abilities and capabilities of her students. "This is not a crafts course nor art therapy. We teach them first how to feel, then how to appreciate, and finally how to produce professional quality art. Once their tactile sense develops, then they really begin to take off." In fact, the students are so adept that there is now an advanced class which recently held a special show called Sculpture in the Second Sense at the Walnut Street Theater. ☐ *Write: David H. Katzive, Chief, Division of Education, Philadelphia Museum of Art, 26th and the Parkway, Philadelphia, Pa. 19130.*

For its staff, Chicago's Field Museum of Natural History is conducting a study for the development of a sensory and tactile experiential gallery and educational curriculum. At this writing, representatives from the departments of education, science and exhibition are designing small models using artifacts, specimens, and audio-visual materials focused on selected topics. School groups including the gifted, handicapped and the retarded will be observed using the model and observations and data will be carefully recorded. Once the gallery is completed, graduate students will continue observations and research in order to maintain effective programming. The final product will coordinate with the museum's $25 million architectural barrier removal project. ☐ *Write: Carolyn Blackman, Coordinator, Special Educational Services, Field Museum of Natural History, Chicago, Ill. 60605.*



In San Francisco's Palace of Fine Arts, erected in 1915 for the Panama Pacific Exposition, a private educational facility called the Exploratorium houses what is perhaps America's most exciting (some say overwhelming) science education experiences. Calling itself a "perceptual science museum," the Exploratorium supplements its regular exhibits on patterns, animal behavior, three-dimensional perception, eye logic, light, color, electricity, sound and music, with special presentations to school groups on the nature of color, lenses and light, anatomy of the senses, music and electricity. Special guides called "explainers" assist visitors and school groups in the theory and operation of demonstrations. In addition, one evening a week, the Exploratorium offers a special teacher's workshop on the theory and classroom applicability of the museum's materials. Most exhibits are designed to be manipulated by visitors but occasionally very delicate or dangerous equipment is behind glass operated by push buttons. Explicit directions or suggestions direct scientific experiments but visitors are encouraged to tinker freely and make their own discoveries.

For the handicapped, the Exploratorium is a barrier-free treasure vault of accessible learning experiences. (The museum is not entirely barrier-free; there are no toilet facilities, fountains or telephones for the physically handicapped.) Most exhibits are displayed within easy reach of wheelchairs. Practically everything including the graphics (the Exploratorium never uses braille; instead the roving explainers assist groups of blind children) may be touched and fondled. For the deaf, there is the light and color exhibition and an electricity gallery where they can feel and employ the forces of magnetism and polarization.

The Tactile Gallery, a giant maze composed of a series of 13 pitch-black chambers compacted into a 30 ft dome, is especially significant to the blind and other handicapped children. Hot, rough, cool and silky, the chambers lead up and down, one into another, in a labyrinthian odyssey of the senses. Visitors walk, crawl, climb, and slide through it. Something like swimming, sometimes visitors float and sometimes they are suspended. There is a rich array of textures inside – plastic, metal, foam, wood, fur – and one chamber contains cushioned benches and a dim light for relief and group discussions about the experience. In addition, the gallery also houses a large concrete tactile tree featuring different textures, temperatures, and motions which also mists and rains. Museum officials report that the Tactile Gallery is especially significant for mentally retarded and emotionally disturbed children and adults. Less than 1% respond by withdrawal or emotional outburst. Instead, an emotionally disturbed visitor, although hesitant at first, responds to the challenge, coming back again and again to experience and enjoy. Since no visitor ever passes or fails an experience or experiment, learning about the natural sciences is a spontaneous, enjoyable activity. According to a staff member in charge of handicapped children, "The Exploratorium is a tremendous challenge to the handicapped. In the end, they feel so much better about themselves because they can achieve success and overcome obstacles that under ordinary circumstances they might never try." Apparently the Exploratorium is a popular success with handicapped children. "Among handicapped people, the percent of returns is very high." □ *Write: Judy Duggan, Public Relations, The Exploratorium, 3601 Lyon Street, San Francisco, Calif. 94123.*

Arts in community service centers

Proximity is a key consideration in the question of accessibility. There are too few major art centers offering programs and exhibitions to the handicapped and most of these are not near to or related with the daily activities of handicapped community residents. Moreover, large numbers of handicapped inmates are being relocated out of regional institutions into foster homes, community day care centers, or neighborhood group homes. A recent study by the President's Committee on Mental Retardation indicates that the population of public residential facilities for the retarded decreased almost 9% in the last four years while the U. S. population increased approximately 6%. Thus, accessibility also implies a new range of services for a new class of citizen – those handicapped people coming out of institutions and those who never went there. With a new kind of client at their doorstep, many existing community-based service centers are developing new arts programs for their new handicapped constituency.

The burgeoning participatory community arts centers are natural resource facilities for the handicapped. Although often in second hand, sometimes inaccessible, spaces scrounged from the neighborhood, a few community arts centers are reaching out to the handicapped by actively soliciting their participation in current programs. Supported by city departments of parks and recreation, two such centers in Oklahoma attract handicapped residents in different ways. The Firehouse Arts Station in Norman, Oklahoma has a barrier-free exhibit area in the garage of a former city firehouse. Products from the upstairs studios can be viewed by handicapped visitors but, unfortunately, the second floor is accessible only by stairs. Nevertheless, visually and hearing impaired students are actively involved in sculpture, ceramics, painting, jewelry, weaving, and photography programs on the second floor. ☐ *Write: Pat Wetherill, Gallery Director, Firehouse Arts Station, 444 South Flood Street, Norman, Okla. 73069.*

In Stillwater, another community arts center called Multigraphis found barrier-free space in an old barn on the city fairgrounds. To launch the new center, citizens, college students, and city officials held a city-wide festival of the arts which transcended all age and handicap barriers. A local artist outlined a landscape design on the barn's east face and everyone else grabbed a bucket and brush to paint between the lines. In 1971, Multigraphis was cited as the fastest moving program in the parks and recreation department. Emphasizing quality experience and instruction, courses in drawing, printmaking, ceramics, sculpture, jewelry and textiles, attract citizens of all ages and handicaps. The physically handicapped especially take to the looms where special adaptations facilitate their use. Because the barn leaked and because the program outgrew its space, Multigraphis recently moved into new barrier-free quarters tailored to the handicapped and their expanding needs. ☐ *Write: Illene Lynd, Director, Multigraphis, 1015 East 12 St. Stillwater, Okla. 74074.*

Housed in an old World War II barracks unit on the Dayton, Ohio river levee, the Riverbend Arts Center offers 17 studio courses in drawing, enameling, jewelry, lapidary, metal construction, multimedia, painting, ceramics, silver casting, silk screening, sculpture, stitchery

and macramé, watercolor, weaving and woodcarving to the general public, schools, centers for the handicapped and rehabilitation agencies. All instructors are professional artists. Despite the lack of ramps and special facilities, Riverbend's staff overcame minor problems in order to offer special workshops for the blind and occasionally for the physically handicapped. Apparently the need for such programs prompts public agencies to support the center. A nonprofit agency nonetheless, Riverbend enjoys free use and maintenance of the old barracks and the city's division of recreation pays for the director and part of the staff. ☐ *Write: Patricia Shoop, Director, Riverbend Arts Center, 142 Riverbend Drive, Dayton, Ohio 45405.*

Formerly working out of the Pasadena Museum of Modern Art, the Pasadena Art Workshops found new quarters in an underutilized elementary school. With equipment from the museum, encouragement from the department of special education and funds from grants, donations, and a special trust, the workshop accepted the school district's offer of space equivalent to four classroom areas, including a large multipurpose converted cafeteria, a fully equipped ceramics studio, office space, and an outdoor playground. In addition to programs for the community, preschool classes, elementary and high school students, plus an alternative school for potential dropouts, co-tenants in the old school building, the workshop also runs a vigorous studio arts program for students and teachers from the district's educationally handicapped special education classes. Emphasizing basic skills, art projects relate to classroom curricula, helping students build a better self-image by providing motivational support through recognition and achievement. For example, many of the children who enter the program are afraid to try anything new or different, or even to attempt learning skills in school because they have failed so often. At the workshop, however, the students learn that whatever they try – crafts, painting, tie dyeing, ceramics or recycled junk sculpture – the attempt is always successful. Thus through the arts, handicapped students lose their fear and carry a new attitude back to the everyday classroom. ☐ *Write: Deborah Brewer, Director, Pasadena Art Workshops, 143 W. Peoria Street, Pasadena, Calif. 91103.*

Billing it the second best ballet floor in America, the Harlem (New York) School of the Arts opened a community theater in a former garage. In order to keep a low profile consistent with its neighborhood, the school raised enough money to purchase the land and several garages adjacent to its present quarters in the St. James Presbyterian Church. One garage, accessible to the handicapped and open to the community, was converted into the center for the dramatic arts department. Plans for the ballet stage were donated by George Balanchine, the designer of Lincoln Center's ballet facilities, and the arena features removable seats for wheelchairs and alternative seating arrangements. Barrier-free, the two-story community theater facility is used for theater, dance, and exhibits. According to the school's director, Dorothy Maynor, "The basic concept of our school is centered on the family as a unit which reinforces all its members as responsible, sensitive human beings. Here, we will strive to reach out for the best in all of us." Many of these families have handicapped loved ones and there are many new "families" of handicapped peopie living together in group homes. In summer, 1975, the school intends to begin construction on a new school of the arts

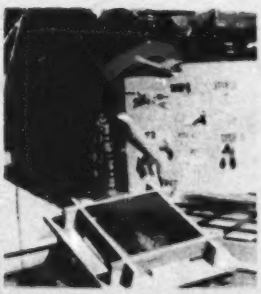
containing many community facilities including gardens, meeting rooms and a "gathering place" for neighbors to meet and relax. ☐ *Write: Dorothy Maynor, Executive Director, Harlem School of the Arts, 409 West 141st Street, New York, N.Y. 10031.*

In Lexington, Kentucky, the Living Arts and Science Center found space in two downtown, mid-nineteenth century houses each surrounded by an acre of land and originally the homes of prominent Lexington families. Old houses are both a curse and a blessing. In the past, one house had been converted into apartments and the extra bathrooms and kitchens were ideal for darkrooms, ceramics, and printing shops. The first floor now houses exhibition galleries, a sales shop, and a library. On the second floor, high ceilings supply hanging space for suspended paintings, banners, newspaper sculpture and other motivational materials in the upstairs creative children's studio. The stairs, of course, are a curse to the physically handicapped. For this reason, Living Arts tailors its handicapped program to the retarded, learning disabled and emotionally disturbed children. Although there is an adult program, most courses are for young people, 4 to 18 years, in art, drama, photography, music and writing. In addition, the second building, a former orphan's home, was converted into the children's theater and music center.

Apparently, Living Arts is especially significant to handicapped children. "It's hard academically for students with learning disabilities," remarked the center's director of special education. "But here, they do things that aren't right or wrong. They can do what they want. We've found that when a child accomplishes something here in the creative sessions, this success often carries over into the academic world. And that is something." James Seidelman, the center's director, likes the "cafeteria approach" to a young person's art experience. He "sets the stage" beforehand, filling the room with materials for an infinite variety of creations. "I try to fill the children with enthusiasm even before they find their places. We put materials in front of them and see just how far they can go." They went pretty far; the center saw over 85,000 people last year. ☐ *Write: James E. Seidelman, Director, The Living Arts and Science Center, 362 Walnut Street, Lexington, Ky. 40508.*

A physicians clinic in Red Oak, Iowa supplied enough raw space to house a media resources center for Southwest Iowa. In 1971, eight cooperating county school boards converted the 16,000 sq ft clinic into the Southwest Iowa Lerning Resources Center – a barrier-free clearinghouse of media hard- and software with offices, studios, photo laboratories, classrooms, graphics workshops, and a planetarium addition with special presentations to the handicapped and open to the public on weekends. When federal Title III funds ran out in 1969, the center became a nonprofit community services corporation supplying 3,000 films plus audio-visual learning packages, slides, filmstrips, and model hardware on contract to public schools, private academies, nursing homes, juvenile centers and various community organizations. The center makes deliveries daily to schools, weekly to nursing homes and upon request to homebound elderly and public agencies. In addition, the center hopes to begin broadcasting educational cable TV programs aimed at handicapped elderly from a newly renovated studio in the clinic.

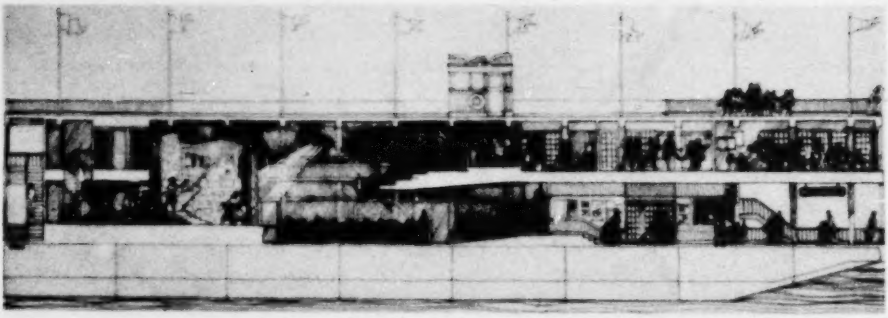
The Learning Resources Center pioneered two new programs in media arts for the handicapped. The first, Project Communicate, brought full-length feature films into classes for the mentally retarded, homes for the aged, and mental institutions. Films such as "Heidi," "Captains Courageous," "The Time Machine," "Fantastic Voyage," and "A Boy Ten Feet Tall," captured the imagination and rapt attention of handicapped children and adults in eight pilot school districts, 31 nursing homes and a state mental institution. The results clearly justify the program. "These children are generally thought to have short attention spans and inability to concentrate," reports the center's director, Bill Horner. "They stayed with the feature films every moment – in some cases over two hours." In addition, children were encouraged to bring friends to the show. In fact, children from many other "regular" classes flocked to the films and, in the follow-up discussions, joined in to help relate the plot to current events and everyday situations. Because the special children took an active lead among their normal peers, the movies served as a normalizing link between often separated groups of children. Also, the center's resource assistants helped teachers prepare follow-up activities—sometimes photography, or 8mm filmmaking and sometimes art, or class murals depicting film's events.



Handicapped children responded so well to the use of media in the classroom that the Southwest Iowa Learning Resources Center soon launched another resources program called Project Discovery. The center developed 44 different occupational exploration kits containing everything needed (including towels, paints, cameras, tools, films, gloves and even nail polish) to set up a complete learning-by-doing vocational orientation course. For example, there are kits for professional art, industrial design, advertising art, photography, media technology, horticulture, as well as traditional career opportunities. Directions and instructional materials are included for teachers and for the handicapped, a tape cassette with step-by-step instructions guides students through many of the packages without constant supervision. Rather than supplementing classroom activities, academic subjects are built into the package. Project Discovery now operates in 20 pilot sites and first reports indicate tremendous successes with handicapped students. □ *Write: Bill Horner, President, Southwest Iowa Learning Resources Center, 401 Reed Street, Red Oak, Ia. 51566.*

The cost of land in the center city (especially New York) often exceeds the expense of putting a building on it. The Eugene O'Neill Theater Center, in association with the City Center of Music and Drama, the South Street Seaport Museum, and UNICEF, intends to launch a community theater and dramatic arts complex without a single square foot of property. The project is called "Showboat."

Instead of land, the O'Neill Center purchased an old railcar barge which it is converting into a classic Mississippi River Showboat. Showboat's auditorium and horseshoe balcony will seat 234 with a 700 sq ft performing arena. Other facilities include dressing rooms, control and projection rooms, rehearsal spaces, barrier-free toilets, master's quarters, cloakroom, box office, lobby and a fully equipped classroom. A special gangplank has been devised for wheelchair access under various docking conditions and the staff is investigating alternative methods (which are not elevators or ramps) for access to the second deck.



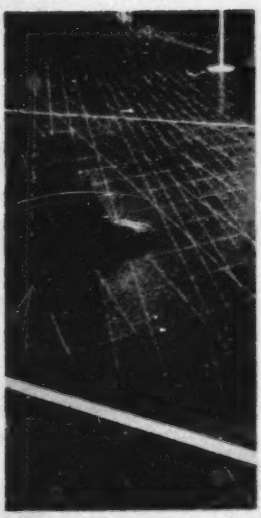
Showboat expects its maiden performance sometime late in 1975.

Under the direction of David Hays, the acclaimed manager of the National Theater of the Deaf, Showboat will offer a wide variety of performances, programs, and workshops to children and adults in all five New York boroughs during the year and in upstate berths along the Hudson River during the summer. With its home port at Manhattan's South Street Seaport Museum, Showboat will ultimately dock in a minimum of four berths per borough in locations selected for school and community needs, accessibility and available public transportation. Concerts and community festivities will herald its arrival in every port and the vessel carries a portable dockside environment for concerts, performances, and fairs. Working with New York City Public Schools' division of children with retarded mental development, Showboat intends to begin a pilot theater program for the retarded, but no handicapped child or adult will be left out. The project's staff is gathering information for the development of special workshops in puppetry, dance, opera, theater, and instrumental music for all varieties of handicaps. For the community, there will be performances and programs for young and old by the best theater companies from around the world; participatory theater sessions for youngsters and teachers working for credit; workshops for students and teachers in training; a model classroom staffed by specialists in theater, dance, music, visual arts, media and education; and evening performances by the numerous small borough and ethnic companies from every neighborhood in the city. Truly, Showboat, when programs begin next winter, will become a vital community arts center with resources for every citizen regardless of age, ethnic origin, or handicap. ☐ *Write: Becky Hannum, Associate, Showboat, O'Neill Theater Center, 1860 Broadway, New York, N. Y. 10023.*

There are various other forms of community service centers not necessarily in found space. Some take art to the handicapped. Some take the handicapped to art. And some do both. The Ozark Folk Center in Mountain View, Arkansas, for example, is a special display, education, and tourist center devoted to the preservation and execution of the hill arts, crafts, and music lore. Operated by the Arkansas State Department of Parks and Tourism, the $3.5 million center welcomes handicapped visitors with barrier-free facilities and two motel rooms and public restroom facilities especially designed for the physically handicapped. Also aimed at attracting handicapped patrons, Long Island's Nassau Coliseum recently converted two seating sections for wheelchairs, and added special parking and cutaway curbs. ☐ *Write: Susan McMurry, Administrative Assistant, Ozark Folk Center, Mountain View, Ark. 72560.* ☐ *Write: Arthur Scharf, Executive Director, Nassau Veteran's Memorial Coliseum, Mitchell Field Complex, Uniondale, N.Y. 11553.*

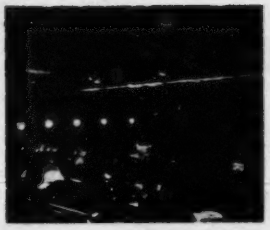
The Junior Arts Center in Los Angeles' Barnsdall Park is an example of a new community arts center designed to both house and deploy participatory arts for all the city's children. As a joint venture of the Los Angeles Municipal Arts Department and the Junior League with cooperation from the Department of Recreation and Parks, the center opened in 1967 as a community arts educational facility. There is no separate budget for education; the center's entire function is educational. In addition, there is a gallery for exhibiting children's works plus a permanent collection of approximately 200 works by young people ages 4 to 17. There is also a catalogued but unedited collection of 8mm student films, many by deaf students who enroll in the center's filmmaking for the deaf program.

In addition to its outreach programs in schools and community events, the Junior Arts Center runs a vigorous program for blind, deaf and orthopedically handicapped children. In a program for the blind, for example, the teacher/artist worked on the children's kinesthetic sense of space by working wit[illegible]tring sculptures. With the orthopedically handicapped, the artists, using carpet and paper tubing, helped the children build a tube city through which youngsters could crawl and explore without their wheelchairs, using functional limbs to pull their bodies through. Rather than working with a child's disabilities, i.e., music for the deaf, painting for the blind, movement for the physically handicapped, the Junior Arts Center works on a child's strengths, preferring print- and filmmaking for the deaf, sculpture for the blind, and graphic arts for the physically handicapped. Although in separate programs in the past, handicapped children are now mainstreamed as often as possible into regular programs for all children. Nevertheless, the Junior Arts Center has an abiding interest in developing new techniques for making the arts accessible to all the handicapped and sponsored a special conference for this purpose on arts for the deaf. □ *Write: Claire Deussen, Director, Junior Arts Center, 4814 Hollywood Boulevard, Los Angeles, Calif. 90027.*



At the local level, many public libraries have developed both give and take programs in arts for the handicapped. In Hawaii, the state department of education administrates both school and public libraries. In the interest of economy, many Hawaiian library facilities serve both community and schools simultaneously. In Honolulu, one of these school/community public resource centers is a special library for the handicapped combined with a library for the parents of exceptional children. A large collection of films and filmstrips (captioned for the deaf); a transcribing unit which reproduces instructional, professional and general reading materials in four media — braille, large type, open-reel and cassettes; a special reading service which will render poems, essays, literature or films on demand; demonstrations on special aids and tools for the handicapped; special exhibitions for the handicapped; plus a large braille collection, records, tapes, film loops, audio-visual hardware, multimedia kits, and special games are collected under one roof in order to serve Hawaii's more than 4,600 exceptional children. According to the library's staff, the response from patrons, including the grandmother of a normal child whose parents are deaf, is "more than gratifying." □ *Write: Lydia Ranger, Library for the Blind and Physically Handicapped, State of Hawaii, Department of Education, Office of Library Services, 402 Kapahulu Avenue, Honolulu, Hawaii 96815.*

The Newark (New Jersey) Public Library has a vigorous outreach program which takes films, books, recordings and sometimes art materials to schools, hospitals, institutions, juvenile homes, neighborhood centers, and youth service agencies. A "Books-by-Mail" program also serves the elderly and the homebound handicapped and the library has even opened a special branch for staff and inmates at the Essex County Correctional Center. In addition, special roving librarians visit children's hospitals and institutions to tell stories, show films and bring materials. At the main branch, the barrier-free Newark Public Library features live concerts, at least three constantly changing art exhibitions and a Midday Movie Series. Its Art and Music Department houses a vast array of photographs, artwork and music scores available for reference, with over 1,500 art prints for home circulation. There are also listening facilities for more than 7,000 recordings and cassettes. □ *Write: Jeanette Jarema, Supervisory Librarian, Branch and Extension Service, Newark Public Library, 5 Washington Street, Newark, N.J. 07101.*



With a long tradition in art exhibitions and chamber music, the Mamaroneck Free Library has become a community arts resource center with special programs for the handicapped. In addition to loan programs for books, painting, sculpture, and records, the library also conducts courses in music, drawing, photography, needlework, belly dancing, juggling, conversational foreign languages, and crafts from recycled materials. For severely handicapped adults and teenagers, a special club called the Handi-Handicapped meets twice a month for group activities. The local Kiwanis Club provides transportation for handicapped citizens and the library's new Emelin Theater is a main attraction. The demand for a performing arts facility was so great that a contributor donated enough money to construct a multi-use barrier-free theater flexible enough to accommodate puppet shows, lectures, recitals, and films, as well as amateur and professional theatrical productions. Typical in New York, land was another problem so the city donated the air rights over a municipal parking lot. Once the basic building shell was complete, construction crews cranked the entire facility up one story above the parking lot. Happily for the handicapped, the theater's second level grade meets the library's first level. The theater was also designed with removable seats in the first row to accommodate wheelchairs. □ *Write: Sally Poundstone, Director, Mamaroneck Free Library, Library Lane, Mamaroneck, N.Y. 10543.*

Perhaps more than any other public institution, schools are the most accessible community resource centers. Public school districts maintain a branch facility in virtually every neighborhood. In the past, however, most schools served only a narrowly prescribed constituency, i.e., able-bodied school-age children of normal intelligence. Today, the combination of civil rights for the handicapped along with the community school movement is turning the schoolhouse into a multipurpose, all-inclusive, intergenerational community service center. Scores of these modern community schools jointly operated by school and public service agencies already exist. A large number, too numerous to discuss here, mainstream the handicapped into vigorous community arts programs reinforced by supplementary teaching, medical and social services. Community school centers specializing in arts and the handicapped range from multimillion dollar complexes such as the Human Resources Center in Pontiac,

Michigan, to a converted high school in Bradford, Vermont, housing a museum, community arts theater and mental health center. A full report on the community school movement, *Community/School: Sharing the Space and the Action* is available ($4.00) from EFL, 850 Third Avenue, New York, N.Y. 10022. Also, *The Place of Arts in New Towns* ($3.00) describes many community/school arts programs.

Schools and the arts

A new awareness of the importance of the arts in human fulfillment along with the vigorous handicapped civil rights movement are prompting many public schools to develop new, more extensive arts centers capable of serving all students and often the community as well. In order to upgrade arts facilities and programs, schools most commonly employ the Magnet Center Model – a new or renovated facility housing extensive resources programmed for use by a selected constituency. However, among the various existing school arts magnet centers, there are wide differences in facilities, clientele, and program objectives. Some serve single schools, some attract students from the school district, and others aim more sophisticated programs at a narrow constituency drawn from an entire region. Arts magnet centers also vary programmatically. Some are arts awareness or appreciation centers designed to provoke an experience in the arts. Others are participatory centers with studios and facilities aimed at producing artwork. And still others are career education centers planned for students with occupational intentions in the arts. The following are examples of innovative arts magnet centers that mainstream handicapped students with their normal peers.

The Cleveland Supplementary Educational Center is one of the older public school arts awareness magnet centers. In 1966, the school district converted an abandoned paper products warehouse into a lively arts and media center designed to accommodate 400 3rd, 4th, 5th and 6th grade students from both public and private schools every working day. In its planetarium, theater, studios, music listening and practice rooms, exhibition areas and a model country store, students study music, art, astronomy, space science, meteorology, history, and urban development. In addition, the center offers professional concerts to the general public as well as an enrichment program after school and on Saturdays.

Because it outgrew the old warehouse and because of barriers to the handicapped, the Cleveland Supplementary Center moves into a new downtown facility in late 1975. Ramps, elevators, covered passenger entrances, barrier-free toilets and special viewing platforms in the three-quarter dome space theater will facilitate physically handicapped visitors. In addititon to all the attractions in the old center, the new facility will house a mock-up prison, a television and movie studio, new exhibition areas, and special visual arts equipment. Once the new center is open, children from 200 schools will "spend a day at the Supplementary Center within the human community, for the daily schedule brings together public and private schools from all over Cleveland, with their varied races, cultures, ethnic backgrounds, faiths, intellectual and physical endowments." □ *Write: Donald G. Quick, Director, Cleveland Supplementary Educational Center, Cleveland Public Schools, 1365 East 12th Street, Cleveland, Ohio 44114.*

Also in 1966, the Dayton, Ohio Public Schools obtained a federal grant to convert several basement rooms of an old 1880 elementary school building into a five-senses perceptual experiential museum called New Visions. Divided into two halves, a sensory maze on one side and a ramped exhibition area on the other, fantastic displays heighten the awareness of children drawn from every corner of the district. For one exhibit, "The Magic of Color and Sound," incense burns. Electronic computer music vibrates the air. In the semidarkness, shiny balls shake with no visible means of support. Colorful wheels rotate, barber-striped tubes seem to hang in midair and a nudge sets them in a never unraveling winding and unwinding. Irregularly stacked bricks glowing hot with fluorescence reach out to be touched, along with sculpture, and other dimensional art. Suddenly, the children are aware, and all their senses stand out like antennae. (Unfortunately, some children lack some senses; the museum also serves crippled, blind, deaf, retarded and emotionally disturbed children.)

For the tastebuds, there are bits of lemon, crackers, and gumdrops as well as marshmallows, peanut butter and grains of sugar and salt. There is also perfume, soap, vanilla and incense to smell. One of the museum's goals is to personally reach every child and bring out the withdrawn. A museum staff member reports that one teacher heard a student speak for the first time when the child became engrossed in what was happening at the museum. There are also constantly changing cultural-educational exhibitions, and tour guides called "docents" to assist children through the maze and exhibits. When federal funds ran out in 1968, the school district took over New Visions' support and, today, the museum program is offered regularly to all the district's students. □ *Write: Jean Powell, New Visions, 228 North Broadway, Dayton, Ohio 45407.*

Supported by Dayton Public Schools, the city's arts resources are unusually rich. If New Visions is an arts awareness center, the Living Arts Center housed in a 100-year-old spice and coffee mill, is a participatory magnet center aimed at the production and exercise of the arts. In 1968, the school district obtained a federal Title III grant to convert the old mill, at that time a school district warehouse, into a barrier-free (via ramps and low water fountains) community arts center with a flexible theater, workshops, dance studios, galleries, classrooms and offices. Calling itself a process oriented institution, Living Arts offers programs in creative writing, visual arts, crafts,

drama, music and dance to everyone from preschool to adults living in the Miami Valley region. Again, when federal funds ran out, the school district picked up continued support, supplemented by a modest fee structure. Fees are based on age and residence but often waived for the poor. Because of its barrier-free facilities, programs frequently include emotionally and physically handicapped people working alongside normal students and adults. A recent program, for example, called Hand-made

Toys, brings in guest artists to run workshops in toy craft and theory. The products, along with antiques and commercial commodities, are displayed in a special gallery where children may see and play with various kinds of toys and where artists can evaluate their designs. Similar programs in handmade furniture attract people from all over the city who visit Living Arts to see the inexpensive homemade products. In this case, there is no special gallery. Instead, Living Arts furnishes itself and thus becomes a living laboratory for testing new designs and construction techniques. □ *Write: Ernie Rock, Director, Living Arts Center, 612 Linden Ave. Dayton, Ohio 45403.*

Rather than convert existing spaces, Ann Arbor Public Schools, also with federal financing constructed a new studio arts annex onto the Pittsfield Elementary School according to the specifications developed by the school's art department. Although designed primarily for Pittsfield's students, including problem and mainstreamed handicapped children, the project, called Teaching-Learning Communities or T-LC for short, has a unique relationship with its community. The program was designed to mainstream the neighborhood's elderly into a participatory arts curriculum. Facilities for quilting, painting, sculpture, drawing, puppetry, woodworking, ceramics and more are organized and clearly labeled for easy access.

The elderly, called grandpersons, come regularly to assist the children, help teach, read stories or just pursue their own skills. Some come in wheelchairs. Often, a handicapped or problem student is assigned a particular grand-

person to work with over a period of time. According to T-LC staff, these students make extraordinary progress working with a concerned adult. Over all, the staff reports fewer disciplinary problems, more constructive activities, and more stimulating conversation when the grandpersons are there. In addition to the Pittsfield students, T-LC staff also run programs in the children's Psychiatric Hospital. □ *Write: Carol Tice, Project Director, Teaching-Learning Communities, 2543 Pittsfield Boulevard, Ann Arbor, Mich. 48104.*

Few career arts training facilities are open to handicapped students. The Career Center in Yonkers, New York, however, is a vocational training center for the Yonkers school district which combines the handicapped and disadvantaged children with courses in commercial arts. The school district leases space for the program in a commercial office building. Working closely with local industries, courses in commercial illustrating, commercial photography, appliance servicing and repairs, building mechanics, carpentry, office services, nursing and offset printing serve primarily students particularly vulnerable to unemployment (some moderately handicapped) from four nearby high schools. But a course in ornamental horticulture is especially geared to physically and mentally handicapped students from all over the district. Working alongside parks and recreation staff, students are landscaping an urban national park and planting trees and shrubbery around school district facilities. Also their

greenhouse and ornamental products are for sale to the public. The remaining programs also serve mildly hearing and mobility impaired, emotionally disturbed and educable mentally retarded students. Judged by their interest and motivation, students are accepted into programs designed for "vertical mobility," i.e., an individualized curriculum where students work at their own pace. The lessons are aimed at training students for jobs in the community and at building the student's self-image and confidence. Some students have already obtained part-time work in nurseries, florist shops and landscape maintenance. The Career Center presently enrolls 185 students with space for expansion to 225. All teachers are professionals in their field. ☐ *Write: William Bodack, Building Administrator, Yonkers Public Schools Career Center, 317 South Broadway, Yonkers, N.Y. 10705.*

More typical than a separate district career education center, New York's BOCES (Board of Cooperative Educational Services) centers offer vocational training and arts education to handicapped students from several school districts. Most often, BOCES boards of education, comprising representatives from several cooperating school districts, offer special services and facilities that are not economically feasible for a single district – usually special education and vocational training often including cultural arts centers. In practice, however, the BOCES centers differ widely in operation, facilities, and program offerings. In Westchester County, for example, arts for the handicapped are largely confined to special arts resource programs (not primarily art therapy) in the two new open-plan schools for the handicapped: the Walden School for 300 severely emotionally disturbed children, and the Pines Bridge School for 150 trainable mentally retarded students. At the Rosemary Kennedy Center, another BOCES facility center in Wantagh, New York, retarded students are involved in the arts mainly through therapy programs. The largest public day school for the retarded in the United States, the Kennedy Center employs an arts therapist for their emotionally disturbed and retarded students and a dance and movement therapist for elementary pupils. Also, their speech therapist is in charge of all drama presentations and their horticultural program has one of the few Future Farmers of America Chapters for the retarded. The building also houses the BOCES Cultural Arts Center. Unfortunately, there is no cross-fertilization between neighbors. Only gifted high school students are eligible for cultural arts. ☐ *Write: Paul Irvine, Director of Special Education, BOCES, Putnam, N. Westchester Education Center, Yorktown Heights, N.Y. 10598.* ☐ *Write: Ron Condron, Principal, BOCES, Rosemary Kennedy Center, 2850 N. Jerusalem Road, Wantagh, N.Y. 11793.*

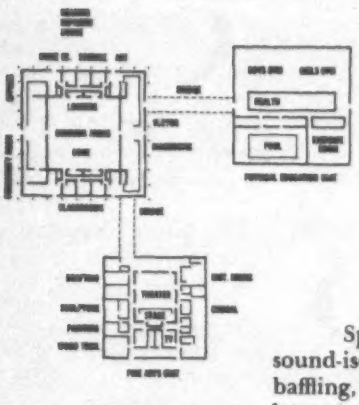
Some vocational schools for the handicapped use the arts to improve general learning abilities. Salt Lake City's Granite School District is known for its innovative vocational programs for the handicapped. The recently opened Hartvigsen School is a vocational center for the district's physically, emotionally, hearing, and visually impaired severely retarded students. A creative teaching staff, sensitive to the student's need for positive means of self-expression, has developed various art centered activities for their students. Courses in creative body movement, art, music (including talent shows and writing lyrics for a school song), drama (involving theater presentations, puppet shows and one student with severe motor impairment who writes poems to express her feelings) and crafts in-

cluding needlework and staghorn buttons and jewelry for sale to the public. At this time, none of the prevocational courses involve the arts. Instead, these courses are used to improve the student's confidence and self-image. ☐ *Write: Barbara Barton, Principal, Hartvigsen School, 350 East 3600 South, Salt Lake City, Utah 84115.*

In some instances, special vocational centers for the handicapped are unnecessary. Aimed at securing employment in the arts for their hearing-impaired students, the North High School in Oshkosh, Wisconsin, cooperating with the Fox Valley Technical Institute, runs an after-hours graphic arts program for both high school students and young adults from Oshkosh and many surrounding communities. Frederic Krueger, the graphic arts instructor with a background in rehabilitation, holds classes in the school's shop two nights a week for three hours. Students learn skills in photography, lithography, letterpress and silk screening. Krueger reports that, "What makes teaching the deaf so rewarding is their high motivation. Most students live outside Oshkosh. Some drive as far as 40 miles to class. Yet most arrive early and leave late. As a group, the students are extremely meticulous, demanding more of themselves in their work than most people." By the end of the course, students have learned layout and design skills, operation of the horizontal camera and converter, and techniques in developing film and stripping negatives onto flats. They can operate the platemaker, duplicate and offset press, develop plates, set type, operate a proof press, as well as exercise skills in photography for commercial and lab work. Beginning in 1973, 8 out of 12 students were employed in local print shops and photography studios by the end of the first year, and one student enrolled in a graphic arts curriculum in a technical institute. Highly successful for deaf students, the program was expanded this year to include drug abuse students. ☐ *Write: Frederic Krueger, Graphic Arts Instructor, North High School, 1100 Smith Avenue, Oshkosh, Wis. 54901.*

Clearly there is a need for new concepts in professional arts preparatory centers geared to teen-aged and young adult students. Indeed, public secondary schools may have no other choice. Most state legislation for the handicapped mandate a free public education through the age of 21. Therefore, high schools must educate a new kind of student, handicapped, for a much longer period of time, nine years in some cases. The courts have ruled that the educational objectives for handicapped students must closely approximate a normal student's objectives. More than an 18-year-old student, a 20-year-old student's goals are aimed at employment and careers. Exhibiting at least normal talents, and for some handicapped a natural affinity, training in the arts is a legitimate educational objective.

Chicago City Schools attack this new problem for the handicapped with a new concept in magnet school facilities for high school aged hearing impaired students. Rather than construct a single magnet facility serving a selected constituency, the nearly completed Whitney Young Magnet High School is a collection of educational centers on a single campus designed to attract a wide range of students with varying economic, ethnic, racial and religious backgrounds and handicaps. The primary magnet center is a comprehensive high school for 2,000 normal students divided into four houses plus a fifth house for 650 hearing-impaired students drawn from all over northeastern Illinois.



Specially designed for deaf education (including sound-isolating 10-inch slabs between floors, acoustical baffling, visual fire alarms, and double glazing) the fifth house contains five educational pods for academic and communication training and development. A new occupational diagnostic/evaluation center called VECTOR (Vocational Exploration Center for Technical and Occupational Research) will provide in-depth skill analysis for a team of researcher/educators to develop better individualized vocational and academic programs. The House Five concept relies on an in-depth diagnosis of the student's physical, psychological and differential learning abilities in order to overcome liabilities and aim the student toward specialized courses among hearing students in the comprehensive high school.

Joined by second level pedestrian bridges, the complex includes two additional centers. One, the physical education and recreation center is owned and operated by the Chicago Park district. The other, the Performing Arts Center, is a magnet for students throughout the city interested in the performing arts, fine arts, medical arts (the campus is adjacent to the University of Illinois Medical Complex), and vocational training. The modern three-story, flat-floor theater with electrically operated seating provides a variety of seating configurations including spaces for wheelchairs. The arena, designed to accommodate theater for the deaf will also involve hearing students. Facilities for theater arts, television, radio, music, sculpture, art, electronics, wood technology, and photography are also designed for hearing-impaired students with career aspirations in these fields. The school district intends to open most of these facilities to the community after hours. Thus the new high school will become a magnet attracting students and citizens from throughout the city to programs and facilities not available elsewhere. ☐ *Write: Joseph Hannon, Assistant Superintendent, Department of Facilities and Planning, Board of Education, 228 N. LaSalle Street, Chicago, Ill. 60601.*

The magnet center concept is by no means the only alternative for public schools willing to begin an arts program for the handicapped. Other school districts have developed techniques for dispersing arts resources and personnel to various schools, and in some cases, every classroom. The Cherry Hill, New Jersey public school system, for example, employs a special education art specialist, Angel Shectman, who travels from school to school initiating new programs and developing new materials based on the special needs of handicapped youngsters. Her charges include children of all handicaps housed in self-contained classes in the regular public schools. She prepares the students for mainstreaming into regular art classes, assists special education teachers with art programming, and helps develop new programs, methods and materials for the handicapped. Thus, handicapped students

are provided with abundant art experiences in painting, drawing, pottery, weaving, stitchery, printmaking, graphics, rugpunching, reliefs, mosaics, sculpture with all types of media, creative stencil work, constructions, woodwork, cut and paste, creative slide- and filmmaking, puppetry, overhead projection light shows, casts, and textiles. In addition, Ms. Shectman designs much of the arts program based on prescriptions and evaluations from the district's child study team. When asked why the arts are important to handicapped children, Ms. Shectman emphasizes humane and educational benefits:

> "Art is a humanizing experience. It's the time in the curriculum which provides the youngster with opportunities to achieve, be expressive and realize that he has visual statements to make that are worthy. There is no right or wrong in visual self-expression. He learns he can achieve and be successful. His ego is raised. In addition, children learn through art experiences. Art education programs provide: increased perception of self and environment; improved self-image; tool subject readiness (3-R's); emotional expression; increased small motor development; hand/eye coordination; new skills; new hobbies and at the secondary level, pre-vocational orientation.
>
> "Education means providing the necessary knowledge and skills to become as perceptive, self-sufficient and a contributor to society, as is possible for the individual's capacity. Therefore, in my opinion, it is not a question of why art is important or relevant for the handicapped, but rather, art becomes a matter of first priority in the total educational learning process of the handicapped."

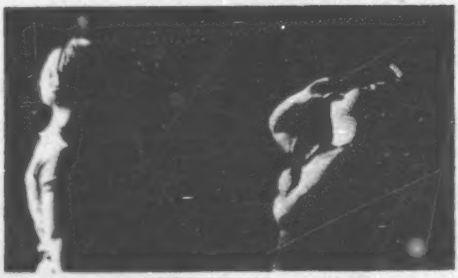
☐ *Write: Angel Shectman, Special Education Art Specialist, 22 Eddy Lane, Cherry Hill, N.J. 08034.*

In Tucson, Arizona, most handicapped students are mainstreamed into everyday classrooms in regular neighborhood schools. A "museum-in-the-classroom" program started when the art department realized that it was impossible, with a staff of five people, to give several thousand children in more than 1,000 classrooms any real exposure to the rich world of art. Designed to provide stimulating, visually appealing materials which will "inveigle or tease the student into further curiosity or ultimately into some kind of research," a program called Humani-Tease sends large, portable exhibitions, small tabletop interest centers, and kits of ethnic and art materials into classrooms around the district. All materials are produced in the art workshop housed in a new administrative-resources, district teaching center building also housing the educational materials center, the district professional library, and the art department. The ethnic and art kits are simple collections of material (some mounted on panels to fit cases of various sizes) including photographs, original art or folk craft (Humani-Tease has a large collection of artifacts and folk art collected over 15 years), clothing, musical instruments, reproductions, pamphlets and books. Kits (some aimed at nonverbal expression for handicapped students)

are not planned for specific ages or curriculum levels; they can be used just as effectively in high school as in first grade. Many are designed to encourage language development for non-readers.

Also available for circulation, are the many portable interest centers – 3'x3'x6" folding screen exhibitions on subjects such as The Bird in Art, What is Blue?, Masks, and Music; tabletop interest centers – lightweight wooden boxes which flip open to reveal plastic enclosed exhibits on various subjects; media kits designed to reinforce the study of various art techniques – sculpture, ceramics, collage, etc.; and experience kits designed for elementary teachers on subjects such as wind, and insects, etc. "We believe that learning can be extended or motivated through direct experiences, or exposure to actual things," reports the director of art, Nik Krevitsky. "By providing well-designed, mini-exhibits on a wide variety of subjects, we hope that children might at least encounter some material which can give them an experience with color, form and design while informing them about a particular subject." The same goes for teachers. The art resource center also runs teachers' workshops aimed at developing new materials and re-educating teachers in the arts and interdisciplinary methods of teaching. □ *Write: Nik Krevitsky, Director of Art, Tucson Public Schools, 2025 E. Winsett, Tucson, Ariz. 85719.*

Sometimes the best dispersed resource for art education is an artist with singular skills who reaches many people in a variety of locations. One such person, Kate Witkin, a performing artist trained at the American Ballet School, spends most of her time either teaching movement and dance to severely handicapped children or running workshops for teachers in "movement as a teaching tool." In community centers, YM-YWHA's, and elementary and high schools in White Plains, Harrison, Port Chester, and Mamaroneck, New York, Ms. Witkin uses dance and movement to break patterns of failure, express pent-up feelings, teach developmental concepts, discharge excess energy, and above all encourage the hidden creative potential within every handicapped child. Ms. Witkin expresses it this way:



Kate Whitkin's Coke Machine Routine

"Movement can be a great equalizer by narrowing the gap between the verbal and less verbal child. A boy or girl with fewer verbal skills may find a place in which to be a leader. I have seen a severely mentally handicapped child express himself in a highly imaginative movement improvisation.

"These experiences have led me to feel that the so-called 'special child' is truly special in many positive ways. I have often felt, too, that the normal-to-exceedingly bright child has much to learn from the warm and giving ways of, for example, a group of young mongoloids."

Working with a wide variety of handicaps, Ms. Witkin often includes small sculpture or busts in her dance classes for students to explore, touch, and imitate in movement. She also uses art materials to teach children "absurdly simple" concepts such as through, forward, behind or in front of. For the boys who feel that dancing is for sissies, she comes in armed with photographs of celebrated male dancers and subsequently explains how training in dance can improve athletics. To prove it, she can kick a mean football wearing simple ballet slippers. "I keenly believe that movement should go far beyond the physical fitness goals. Development of a good body image can lead quite naturally to strong self-image which is so vital. With easy-to-do movement activities, the classroom teacher can help develop children's powers of observation and their listening patterns. We can teach word and number concepts by moving and doing. An activity in a circle, with a partner, or holding hands with a partner, can encourage good social interaction. Creativity through improvisation can be encouraged if we use movement in a nonjudgmental way." ☐ *Write: Kate Witkin, 4 Genesee Trail, Harrison, N.Y. 10528.*

A professional artist like Kate Witkin can enrich the lives and learning of students in schools for the handicapped. The reverse is true for at least one handicapped artist who works with normal students. Fanney Yeh, a graduate of Gallaudet College with a masters in theater education for the deaf from the O'Neill Theater Center through Connecticut College, is a deaf (not hearing impaired) dancer and actress who works with both handicapped and normal people. Based in New York, Ms. Yeh teaches students in three local schools for the deaf. In an unusual departure from traditional practice, she also taught dance, body movement, sign language, and puppetry to emotionally disturbed students at the Waterford Country School in Connecticut. Using techniques in teaching dance to the deaf for emotionally disturbed youngsters proved so successful that Ms. Yeh established a dance program at the 1974 Connecticut College American Dance Festival in

Bibliographies of Art Resources for Exceptional Children Materials On Creative Arts (Arts, Crafts, Dance, Drama and Music) For Persons With Handicapping Conditions available ($2.75) from Publication Sales, American Association for Health, Physical Education and Recreation, 1201 Sixteenth St., N.W., Washington, D.C. 20036

which both hearing and deaf students and dancers worked together. Again, the effects of mixing artists and students with different backgrounds and various handicaps benefited everyone. Deaf artists swapped techniques in nonverbal communication for skills in body movement and improvisation from the hearing artists. Students, of course, were exposed to both. Today, committed to the belief that the hearing and nonhearing world have much to learn from one another, Ms. Yeh has established and teaches in a private dance school called the New Dance Group Studio where normal and variously handicapped students and teachers use dance as a universal means of learning and communication. ☐ *Write: Fanney Yeh, 349 Avenue of the Americas, New York, N.Y. 10014.*

One Out Of Ten: School Planning For The Handicapped discusses the implications of new laws for the handicapped and alternative methods of educating handicapped children in public schools. Single copies are available free (multiple copies 50¢ each) from EFL, 850 Third Ave., N.Y., N.Y. 10022.

Colleges and the arts

Accessibility also implies that an adequately talented and determined handicapped student must be able to complete a venture — that architectural, attitudinal or admission barriers must not prevent the handicapped from obtaining the prerequisite credentials and career experiences essential for professional arts. Whether teacher, artist, performer or administrator, employment in the arts requires education, apprenticeship, and opportunity to participate. Perhaps more than any other, the most difficult barrier to the handicapped is access to higher education.

A few colleges have removed their barriers and widened their doors to the handicapped student. Two noteworthy examples are the Ohio State University's architectural barrier removal program including special dormitories for the handicapped, and the University of Illinois, Urbana's Division of Rehabilitation research on accessibility. See also: *Accessibility of Junior Colleges for the Handicapped,* available (free) from the President's Committee on Employment of the Handicapped, 1111 20th Street, N.W., Washington, D.C. 20210, and *Some Colleges and Universities with Special Facilities to Accommodate Handicapped Students,* available (free) from The National Easter Seal Society for Crippled Children and Adults, 2023 W. Ogden Avenue, Chicago, Ill. 60612.

Going one step farther than simple architectural accessibility, the University of Kentucky has established a special Handicapped Student Services division of the Office of the Dean of Students. At Kentucky, the HSS acts as general ombudsman for their handicapped students — obtaining scholarships, counseling students, publishing accessibility guidebooks, recommending architectural improvements on campus, counseling teachers with handicapped students, establishing special study facilities and resource materials, and running orientation programs for blind and crippled students. Over the last four years, the university has systematically improved the campus's overall accessibility. As a result, very few students are barred from any course offering, and handicapped students are involved in all the arts, including paraplegic students in theater and drama. ☐ *Write: Jacob Karnes, Jr., Director, Handicapped Student Services, Room 6, Alumni Gym, University of Kentucky, Lexington, Ky. 40506.*

The Orange Coast College, a community institution for 32,000 students in Costa Mesa, Calif. established a similar handicapped services program over a year ago for their 200 orthopedically handicapped and 25 visually impaired students. At the Handicapped Center, students can obtain transportation, registration assistance, counseling, tutoring, mobility assistance, interpreters, paid note-takers, readers, typing, financial aid, specialized equipment, recreation and leisure facilities, and health and legal services. Thus, with guidance from Handicapped Services, students may attend all regular college classes including drama, art, music, sculpture, design and ceramics. In fact, the services are so attractive that the center occasionally serves normal students as well. The center feels that it should not handicap the normal student by withholding services (such as tutoring, counseling and typing) they may also desperately need to succeed in college. Essentially a barrier-free campus, Orange Coast has obtained 80% financing from the California State Rehabilitation Agency to renovate the college stadium for accessibility to the handicapped. ☐ *Write: Hedy Harte, Coordinator for Handicapped Services, Orange Coast College, 2701 Fairview Road, Costa Mesa, Calif. 92626.*

New York's Queensborough Community College has a special external degree program leading toward an associate's degree for the homebound handicapped. Initiated in the spring of 1973, the college has equipped 22 campus classrooms with conference telephone units for classroom-to-home telephone instruction. Before class begins, the instructor connects a portable conference telephone unit and dials the homebound student. During class, the instructor wears one microphone and passes a second microphone around among the normal students during class discussion. At home, the handicapped student either wears a headset or places the receiver into an amplifier to free hands for notetaking purposes. Through the two-way hookup, students can ask questions and participate in class discussions. Art courses are principally in music, and the college mails tapes, records and class materials to the homebound student. Also, for concerts, receptions, and special performances, the college will help make arrangements for transportation so that the students get some direct experience with the arts. ☐ *Write: Barbara Froehlich, Coordinator, External Education Program for the Homebound, Library Building, Room 311, Queensborough Community College, Bayside, N.Y. 11364.*

Despite these few schools, many colleges and universities are closed to handicapped students. In addition, very few schools of art actively solicit handicapped students and, as a rule, college counselors seldom recommend the arts as legitimate career goals for the handicapped. There are, of course, exceptions to the rule.

St. Andrews Presbyterian College, for example, in Laurinburg, N.C., specializes in integrating the physically handicapped student into all aspects of higher education. Among 625 scholars, 23 students are confined to wheelchairs and 30 others partially mobility impaired. Counselors work with their students with few preconceived notions about abilities and vocational opportunities. As a result, there are physically handicapped students majoring in music, painting, fine arts, literature, drama and theater. In fact, physically handicapped students are participating as actors in theater presentations. In a recent statement to friends of the college, its president, Donald Hart, pointed out the "splendid interaction" between handicapped and ablebodied students.

"At St. Andrews, creative writing has been one of the main areas of vigorous activity. In addition to work in various classes and on the student literary magazines, two different literary magazines, operated and financed by individual students, have carried their writing to the region and the nation. Star Webb Paper was founded in 1963 by wheelchair student Thomas Michael Fisher and has received funds from the CCLM branch of the National Endowment for the Arts. New South Writings was founded in 1974 by Richard Stephens, a 'regular student' and handicapped student, Tim Tourtellotte. This magazine just recently received a grant from the North Carolina Arts Council and was highly praised by major literary figures."

Planned 14 years ago as a "100% barrier-free campus" handicapped students maneuver around St. Andrews on their own without encountering any architectural barriers. All buildings are accessible and there are ample parking spaces, broken or sloping road curbs, elevators and ramps. In the dormitories, the handicapped share and often room with normal students in suites provided with typical rehabilitation toilet and bath facilities. □ *Write: Director of Communications, St. Andrews Presbyterian College, Laurinburg, N.C. 28352.*

The Arrowmont Crafts School in Gatlinberg, Tennessee, affiliated with the University of Tennessee's Home Economics Department is another exception to the rule. Most schools of art do not encourage handicapped enrollment but each year Arrowmont runs a 10-week summer school crafts workshop specially for the community and undergraduate, graduate, or auditing handicapped students. Courses, many indigenous to the East Tennessee hill culture, in ceramics, weaving, spinning, dyeing (using native materials), electroforming, photography and crafts are adapted for the handicapped including deaf, blind and crippled students. The 34,000 sq ft crafts school was constructed in 1970 with ramps and accessible toilet facilities for the physically handicapped. In addition, Arrowmont provides housing on the first floor of the school's living unit which includes handicapped parking spaces. Working closely with the university, Arrowmont aims their matriculating handicapped students at bachelor of science degrees in crafts and interior design. □ *Write: Marian Heard, Director, Arrowmont School of Crafts, Box 567, Gatlinberg, Tenn. 37738.*

The North Carolina School of the Arts, a state-supported college and secondary education career training school for dance, design and production, drama, music and the visual arts is another arts school which admits qualified and talented students regardless of their handicaps. Graduates include a deaf pianist, a paraplegic classical guitarist and a dramatist partially paralyzed by polio. The school's sensitivity to the handicapped person's unique abilities in the arts took a dramatic turn when the drama department, touring local schools with a production in mime, clowning and nonverbal movement, performed at the North Carolina School for the Deaf. Students at the school were so smitten by the performance,

that the drama department held a series of workshops in the dramatic arts at the school for the deaf. As a result, the students' interest in the arts grew by leaps and bounds and the school for the deaf funded a special two-week nonmatriculating course at the school of the arts in various arts subjects for interested students. This program's success has now led to a special summer program in the arts for matriculating deaf students aimed at BFA's in dance, music, design and drama. In addition, a graduate of the North Carolina School of the Arts is working at the school for the deaf in order to develop new school programs in the arts for all their hearing impaired students. ☐ *Write: Donna Jean Dreyer, Director of Public Relations, North Carolina School of the Arts, Box 4657, Winston-Salem, N.C. 27107.*

Unfortunately, only a small percentage of the deaf are enrolled in regular college programs for hearing students. According to the National Advisory Committee on Education of the Deaf:

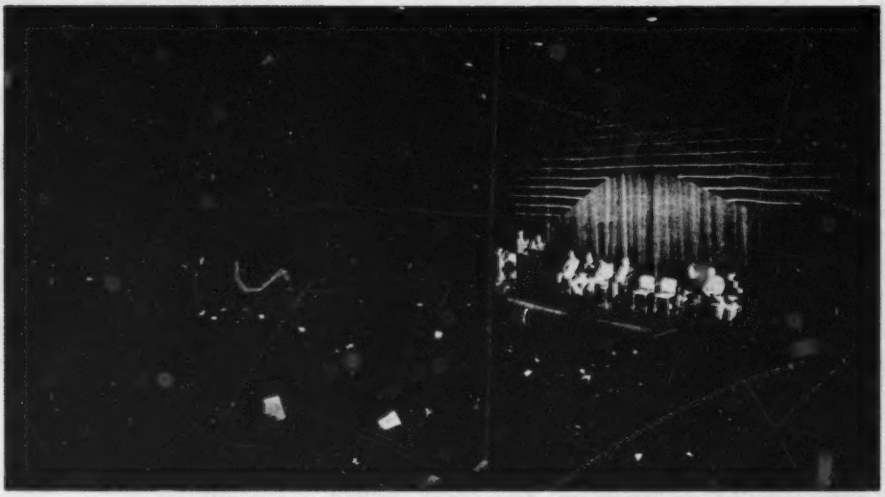
> "Each year about 3,600 deaf youths graduate or leave programs for the deaf. Between 500 to 800 of them will continue in postsecondary programs for the deaf or in some instances hearing colleges or universities . . . . The current enrollment of postsecondary students is slightly more than 2,400. The bulk of these students are in attendance at either Gallaudet College or the National Technical Institute for the Deaf."

(Basic Education Rights for the Hearing Impaired, 1973, available (55¢) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, stock #1780-01216).

A *"Guide to College/Career Programs for Deaf Students"* is available (free) from the Office of Demographic Studies, Gallaudet College, Wash., D.C. 20002.

Art education for the hearing impaired largely takes place in the nation's two colleges for the deaf: Gallaudet College in Washington, D.C. – a liberal arts college for the deaf established by Congress in 1856 – and the National Technical Institute for the Deaf (NTID) established by Congress in 1965 at the Rochester (New York) Institute of Technology. With about 1,000 college and secondary school students enrolled at Gallaudet, deaf students may major in drama or visual arts but the school offers no masters or graduate degrees in the arts. However, working with the college placement center, a few students enroll in regular colleges for postgraduate work. In addition, many Gallaudet students of drama and dance go to the National Theater of the Deaf at the O'Neill Theater Center in Waterford, Connecticut, for advanced degrees through Connecticut College in New London. ☐ *Write: Angelo Corte, Chairman, Art Department, or Gilbert Eastman, Chairman, Department of Drama, Gallaudet College, Kendall Green, Washington, D.C., 20002.*

In Rochester, New York, the arts are a more important part of the curriculum at the National Technical Institute for the Deaf – the nation's only postsecondary technical school for the deaf. Aimed at associate arts degrees, NTID's 750 students may major in photography, printing, drama, fine arts or crafts. In addition, there are 20 majors in applied arts including advertising, graphic



arts, display and graphics, furniture, and stage design. At the end of the course, many students obtain employment in the arts field but approximately a third enroll in other schools for advanced degrees; most of them go to NTID's parent school the Rochester Institute of Technology.

NTID's new $2.7 million complex on the institute's campus houses a 542-seat experimental theater designed specifically for deaf theater and a deaf audience. The front 200 seats in the theater have special lights for the audience to follow a script while watching productions. A closed-circuit television system replaces the traditional headset linking the stage manager to lighting control, the orchestra, and stagehands. In addition, workshops, dressing rooms, a rehearsal room and costume shop used to teach theater technology to deaf students surround the arena. ☐ *Write: Jack Smith, Public Information Director, National Technical Institute for the Deaf, One Lomb Memorial Drive, Rochester, N.Y. 14623.*

In order to obtain advanced degrees in the arts, deaf students find very few institutions with programs that enable them to successfully complete curriculum requirements. The California State University at Northridge is one enlightened university which mainstreams all handicapped students through a coordinated series of special services. For example, in classes with deaf students the college provides interpreters who also interpret opera and theater productions. In addition, courses in music and sign language, theater of the deaf, drama and sign language, and interpretive dramatic readings significantly enrich the education of 130 deaf students at a major "hearing" university. Between classes, deaf students can attend religious services and special entertainment programs interpreted for the deaf.

For their 150 physically handicapped students, the university is 98% barrier-free and a vigorous physical education program provides therapy and training in leisure time sports such as skiing and tobogganing. In order to facilitate a blind student majoring in art history, the art department hired a New York firm specializing in braille maps to convert visual artifacts into relief prints for use by all the university's visually impaired students. ☐ *Write: Ray Jones, Director, Center on Deafness, California State University, 1811 Nordhoff, Northridge, Calif. 91324.* ☐ *Write: Pat Conklin, Coordinator, Veteran and Handicapped Student Affairs, California State University, 18111 Nordhoff, Northridge, Calif. 91324.*

The Golden West Community College in Huntington Beach, California, is another hearing institution often used by deaf students as an alternative to Gallaudet or Rochester's National Technical Institute. In 1970, the college opened a special hearing impaired program where students have a choice among five areas of study: a work certificate program, a vocational program leading to an associate of arts degree, a transfer program aimed at enrollment in a four-year college (often the university at Northridge), a high school diploma program or, simply, any course of special interest to the student. In addition, the program offers note-taking and special instruction for the deaf, readers for the blind, and sign linguists attend all cultural events. Also, special courses in beginning and intermediate sign language are heavily attended by hearing students. A deaf drama group called the Silent Rustlers generated a class for theater of the deaf and students often perform on and off campus. Golden West also enrolls blind and orthopedically handicapped students but the campus is not barrier-free. However, an accelerated barrier removal program should make the campus fully accessible by 1980. ☐ *Write: Paul Culton, Chairman, Hearing Impaired Program, Golden West College, 15744 Golden West Street, Huntington Beach, Calif. 92647.*

Of course, colleges and universities are involved in more than the education of handicapped arts students. Colleges, as the principal instructors of teachers, uniquely affect the incidence of arts in the classroom. Often, handicapped children receive no art training in elementary or secondary schools because teachers (including special education teachers) have no training in the arts. The Wichita State University College of Fine Arts and the Crane School of Music at the State University College at Potsdam, New York, have similar programs in special music education. Student music educators may elect to take a special block of courses aimed at teaching music to the handicapped. Such students do not become music therapists. Rather, they become certified music educators equipped to design and implement music programs geared to the developmental needs of handicapped students. Interestingly, 10 to 15% of the music education students at both schools take the special training and both readily accept handicapped students into the program. Wichita reports that the Chicago Music College at Roosevelt University intends to begin a similar program in 1975. When these uniquely trained graduates filter into normal schools and special education centers, it should produce a new appreciation and participation in music arts for the handicapped. ☐ *Write: Betty Welsbacher, Director, Special Music Education Program, College of Fine Arts, Wichita State University, Box 53, Wichita, Kan. 67208.* ☐ *Write: Sona Nocera, Assistant Professor, Crane School of Music, The State University College at Potsdam, Potsdam, N.Y. 13676.* See also: *Music for the Exceptional Child,* available ($7.50) from the Music Educators National Conference, 8150 Leesburg Pike, Suite 600, Vienna, Va. 22180. Attn: Publications, Stock #32109932.

College and university art departments also often serve as general facilitators of unique programs geared to the interests of faculty and students. Detroit's Art School of the Society of Arts and Crafts, for example, spent a year designing furniture and equipment for the physically handicapped including a compact taxi that can accommodate a passenger in a wheelchair. The Department of Art at Northern Illinois University hosts a chapter of the National Art Education Association and has sponsored con-

ferences and workshops on art and special education. In addition, the art department, with the cooperation of the university's department of special education and the state department of education, sponsors an annual traveling exhibition of art by the handicapped. The exhibit, composed of two- and three-dimensional artwork from schools and organizations throughout Illinois, has been displayed in various schools, colleges, museums and public institutions in the United States, Canada, Mexico, and Puerto Rico. In addition, the art department offers courses and a masters degree program in art education and special education. □ *Write: Caroline Allrutz, Department of Art, Northern Illinois University, Dekalb, Ill. 60115.*

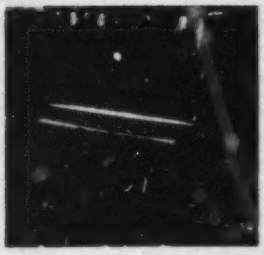
Art departments can also reach out to schools for the handicapped. The Washington University Fine Arts Department and the Missouri School for the Blind are cooperatively developing a floor-mounted sound system called the "sound floor" which trains blind children how to balance, walk a straight path, step up and down and make turns. The system contains two basic parts: an electrically wired grid that is extendible and collapsible, and 48 one-sq-ft tiles consisting of two slabs of wood on mortarboard with a layer of foam rubber between so they sink when stepped on. The bottom layer contains pegs which fit into the grid. When a student steps on a tile, it sinks slightly making contact with a grid which is wired to a sound device. The latest model has 11 sounds including six organ notes, a high and low sonalert, a buzzer and a fast and slow metronome. Each grid can be separately wired to a different sound and thus children can follow pathways of silence, similar notes, or tunes. At this writing, Washington University students are also experimenting with attaching the system to an organ keyboard in order to rig a musically choreographed sound system in which blind children create music by dancing. The new system, however, is not yet installed at the school for the blind. □ *Write: Fern Tiger, Professor, School of Fine Arts, Washington University, St. Louis, Mo. 63130.*

New facilities for the arts in special schools

In the past, public and private schools for the handicapped, rehabilitation centers, and state institutions were the chief depositories of handicapped children and adults. The arts in such centers were largely used for therapeutic purposes, leisure activities, or as a means of teaching skills leading to industrial employment. In recent years, however, federal and state courts have challenged the arbitrary assignment of moderately handicapped people to restrictive environments exclusively for the handicapped. In fact, the courts have mandated the transfer of hundreds of thousands of handicapped inmates either back to their homes or into hostels, halfways houses, group homes, workshops, or day care training centers. As community citizens, these new handicapped residents are legally eligible for every public service offered to the community.

The bulk of the nation's severely handicapped citizens, however remain in schools for the handicapped, rehabilitation centers, and state institutions. With an increasing severely handicapped constituency on their hands, arts in handicapped schools and institutions have new meaning for the training and life-styles of the inmates. Thus, traditional centers for the handicapped are developing new facilities and techniques which give the severely handicapped access to the arts perhaps more freely than the new handicapped citizen in a still inaccessible community.

Theater, for example, is a particular problem for handicapped community residents. Most theaters are not accessible to the physically handicapped, and with few exceptions, physically handicapped people are never seen on stage, screen or television productions even as extras or stand-ins. Except for the National Theater for the Deaf, a few colleges which provide interpreters during productions, or the woefully few cities requiring auditory amplifiers in assigned seats, theater is largely meaningless to the ordinary deaf citizen. And for the blind, theater is irrelevant despite a number of recent stage, screen and television productions featuring blind protagonists.



Virginia's Woodrow Wilson Rehabilitation Center was one of the first centers for the handicapped to design a theater and theater productions for the physically handicapped. Its new activities building completed in 1966 houses a 515-seat theater with special curbed continental embankments for 86 wheelchairs which can also accommodate portable folding seats when not filled. A ramped corridor and auxiliary foyer along one side of the building provides wheelchair access to the front embankments and to dressing rooms and stage crafts area backstage. Because of a wheelchair person's greater seating height, the seating elevation is staggered for optimum sight lines. In addition, aisles and ramps are wide enough for a wheelchair spectator to move a short distance to a regular theater seat. ☐ *Write: Marianne Cashatt, Director of Special Services, Department of Vocational Rehabilitation, Woodrow Wilson Rehabilitation Center, Fisherville, Va. 22939.*

The Maryland Rehabilitation Center constructed its theater for the physically handicapped in 1972. In order to avoid the costly ramp and foyer system of the Woodrow Wilson Rehabilitation Center, the wheelchair embankments were placed at the rear of the theater. Then the architects eliminated all stairs and threshold changes and provided aisles sloped from the foyer toward the stage. Here, the 6% slope is gentle enough for even quadriplegic wheelchair people to maneuver independently. Thus, all the theater's audience enter the building through the same entrance without need for special and often distasteful ramps and facilities for the wheelchair handicapped. However, access to the dressing rooms and backstage is via a rear barrier-free entrance. Like Woodrow Wilson, the Maryland Rehabilitation Center wheelchair students play a part in all theater productions including writing, acting, set design, and stage managing. ☐ *Write: Jim Kirby, Director of Public Relations, Maryland Rehabilitation Center, 2301 Argonne Drive, Baltimore, Md. 21218.*

On a different theme, the Eugene O'Neill Theater Center in Waterford, Connecticut is concerned with making legitimate theater more accessible to everyone. Its president, George White, puts it this way:

> "Today, theater and the public are strangers. Roughly 2% of the American people have ever seen a live performance. It is small wonder, then, that people have lost interest in theater.
>
> There are reasons, of course – movies, depression, war, television as well as unfavorable economic factors. But the fact remains that the theater continues to lose its audience and has become increasingly inaccessible to more people.

"The O'Neill Theater Center's main purpose therefore is to do all it can to restore legitimate theater in America and make it an important part of our way of life."

On a former estate owned by the city of Waterford, Connecticut, and leased to O'Neill for $1 a year, the center functions as both a showcase of and a working laboratory for American theater. With housing and office facilities in an old mansion plus a theater and classrooms in a renovated barn, the Eugene O'Neill Memorial Theater Center, as a nonprofit educational organization, supports six major theater programs: The National Playwrights Conference, The National Critics Institute, The National Theater Institute, The National Theater of the Deaf, The Little Theater of the Deaf, and The Professional School for Deaf Theatre Personnel.

For mainstream performing arts, the O'Neill Theater Center provides invaluable assistance: The Playwrights Conference for example, sponsors new artists, elicits new material and premiers new works which may have little chance of exposure in the competitive atmosphere of major theater centers. The Critics Institute exists to help professional critics explore the performing arts and to expand their skills in theater, film, and dance criticism. The National Theater Institute, accredited by Connecticut College, is a working laboratory in theater arts training for students and teachers of performing arts from more than 50 colleges and schools of art across the United States.

For the hearing handicapped, the O'Neill Center has become a powerful international promoter of performing arts of and for the deaf. Not to be confused with theater *for* the deaf, The National Theater of the Deaf, directed by David Hays, is a professional performing arts company combining the visual language of the deaf with speaking actors who synchronize words with the eloquence of gesture and sign language. Performing in major theaters in the United States and abroad, The National Theater of the Deaf has been credited for a new art form. In fact, more than four fifths of its audiences are hearing people. The Little Theater of the Deaf is a branch of The National Theater of the Deaf. Using the same combinations of visual language, mime, and the spoken word, The Little Theater performs traditional literature and new works for children in schools throughout the world. Apparently, the performances markedly increase a child's appreciation of literature. Attention spans are stretched and the ability to do literate work for young children has dignified the very concept of children's theater.

The Professional School for Deaf Theatre Personnel is the only professional dramatic training center for the deaf in the Western world. Each summer over 35 deaf people involved in local and college amateur dramatics or who work with deaf children in the field of drama, are brought from all over the country to O'Neill Center for an intensive five-week course. They study acting, theater history, directing, dance and movement, Eastern theater techniques, fencing, tumbling, set design, costumes, lighting and other basic and advanced theater disciplines. During the summer school, a program aimed at implementing theater in public and private schools is open to teachers and students from elementary schools for the deaf. Also, through Connecticut College, the school grants a master's degree in theater for educators (deaf) of the deaf.

Although there are few special design accommodations for deaf performers in the O'Neill facilities, the converted barn, mansion, outdoor amphitheater, and 95-acre grounds are heavily used by students and professionals in all the programs. This year, however, the center is renovating an underutilized wing of the old barn into a multipurpose facility including classrooms, a large rehearsal room and laboratory theater, locker, shower, and storage facilities, plus an extensive audio-visual studio with equipment for video tape, film, slides, and television. □ *Write: David Hays, Artistic Director, The National Theater of the Deaf, Eugene O'Neill Memorial Theater Center, 305 Great Neck Road, Waterford, Conn. 06385.*

The Mark Twain School in Rockville, Maryland is a new county-wide magnet school for students of at least average intellectual potential with difficulties in academic tasks, human relations or self-organization. The school's main objective is to provide the resources that will ameliorate disabilities as rapidly as possible so that the student can be placed back in a community school setting. Thus Mark Twain operates 12 months a year and students are only allowed to stay two years maximum. An integral part of the curriculum, the arts provide students a nonverbal means of expression, a sense of participatory achievement, a physically active means of learning and work discipline with clear boundaries and intersocial dependencies. In order to facilitate these activities, the building contains a large area called the "arts barn" — not a barn at all but actually a large area divided into five laboratories for music, art, drama, industrial arts, and domestic survival, a euphemism for home economics because 85% of the students are male. The drama laboratory is particularly interesting because of its extensive use of video tape facilities. A large room with a raised stage at one end and carpeted tiers at the other, the laboratory is equipped with rostrum blocks, a small lighting board, large pillows as well as a conference table and chairs. The curriculum covers sensory work, physical expression (dance and mime), oral communication, acting, and dramatic construction all in the creative drama and improvisational theater mode. Scripted productions are not mounted; instead, stories are performed improvisationally. With video taping and playback equipment, students often see unrealized talents and handicaps on the screen which are not fully evident any other way. Occasionally, the video taped performances are broadcast throughout the school. □ *Write: Principal, Mark Twain School, 14501 Avery Road, Rockville, Md. 20853.*

Music is another art form in which few severely handicapped children and adults take an active part. Of course, elementary music programs are a part of every school and institution for the handicapped, but ordinarily, students are listeners or observers and do not actually play instruments. For the deaf, music is a particular problem because of their unusual fascination of it. Although most schools for the deaf attempt no sophisticated music programs, a few have developed facilities which open a new world of music and rhythm to the handicapped.

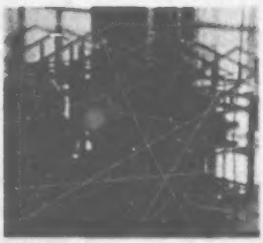
The Perkins School for the Blind in Watertown, Massachusetts, is a national center for the education of multiple handicapped, deaf/blind children. The school's new North Building, designed by Edward Diehl Associates, is a special school, diagnostic center, and teacher-training facility for the deaf/blind. Two unique facilities in the North Building have brought movement, dance, and music into the soundless, sightless lives of deaf/blind children. The rhythm room is an ordinary music facility except that the entire floor is mounted on one-inch-thick hard rubber pads. Thus the rhythm and vibrations of musical instruments travel through the floor into the children's chairs and feet. With such a facility, even dance is possible as long as one foot remains in contact with the floor. In the "acoustic gymnasium," special geometric play forms (some like small stages, and others with sculptured forms) lie on the floor. Each play form contains a wireless receiver and loudspeaker underneath. Through a transmitter in an adjoining closet, the instructor can broadcast voice and music into the play forms so that the children can follow sound as well as feel it while they dance, play or exercise. □ *Write: Edward Diehl, Diehl Associates, Architects, 23 Lexington Avenue, Cambridge, Mass. 02138.*

Instead of rhythm floors, the music department at the Metropolitan School for the Deaf in Toronto, Canada, developed a system of vibrating boards, tone blocks, and percussion instruments which enable profoundly deaf children to perceive and move with music as well as develop speech, auditory perception and coordinative skills. Used with a music and rhythm program based on the Carl Orff method, the vibrating boards are large 4' x 8' plywood sheets mounted at the bottom by cross pieces with a vibrator affixed to the reverse side. Holding or leaning against the board, a profoundly deaf student can feel music rhythm played on a record player or cassette fed through the vibrator. The tone boxes are mounted on wooden resonators — one for a low frequency and another for a higher frequency. Holding the box against their bodies, deaf children can perceive differences in tones. The higher tone can be used for the accented note and the lower for an unaccented note. The lowly kazoo is another innovation in the music room for the deaf. This unusual sounding instrument requires both breath and voice to produce its sound. Children know whether the instrument is working or not by the feel of its vibrations. High and low, fast and slow, accents of words, duration of breath, etc., all can be taught with the kazoo. In addition, the Ontario Arts Council recently sponsored a 10-week teaching/performing visit to the school by the Raymond Family Steel Band from Trinidad. The performers are teaching eight hearing and eight deaf children to build and play steel drums. The deaf are taught to play drums by counting chords instead of reading notes. □ *Write: Lois Birkenshaw, Music Coordinator, Metropolitan School for the Deaf, 43 Millwood Road, Toronto, Ontario, Canada. See also* Music for Fun, Music for Learning, *1974, by Lois Birkenshaw, available ($6.50) from Holt, Rinehart and Winston of Canada, Ltd., 55 Horner Avenue, Toronto, Ontario M8Z4X6, Canada. (Also available from Holt, Rinehart and Winston, Inc., CBS International, 383 Madison Avenue, New York, N.Y. 10017.)*

The severely retarded also have difficulty reading and performing music. However, the music department at the Arkansas Children's Colony in Conway has invented a simplified musical coordinating device which enabled

the students to form a concert band at least as good as those in many junior high schools. The device consists of an illuminated box on metal stands. Squares on a sheet of paper illuminate signals for the student who cannot play melody, or which note of a two- or three-note harmony to play. The conductor runs the box with a foot pedal and six buttons and most songs are played in either B flat or E flat. □ *Write: Ouida Wright, Director of Music, Arkansas Children's Colony, Conway, Ark. 72032.*

Architecture is another art in which the handicapped are seldom involved. True, many rehabilitation centers and especially the Woodrow Wilson Center, teach the physically handicapped drafting and rendering skills. However, very few handicapped students actually get involved in architectural design, construction, and building techniques. The exceptions to this practice prove that many handicapped youngsters have a natural affinity for design and an unusually acute interest in their environment.



The Learning Center for the Deaf in Framingham, Massachusetts, a private school for 60 hearing-impaired students ages infancy to 21 needed to redevelop their curriculum and their environment in order to move from teacher-centered learning to activity-centered open education for deaf children. The only available open environment was the unused loft space in an existing barn, so the school solicited architects interested in working with the students to convert the barn. Eco-Texture, Inc., a firm of young architects, won the job and promptly built a scale model of the old barn to cooperatively plan the new learning environment with both teachers and students. The kids took to the model instantly and together they worked out a plan to capture every cubic inch in the 50-year-old barn. Once plans were complete, the students participated in every phase of reconstruction. The city building inspector, for example, ruled that all exposed surfaces of a stone foundation wall must be either blocked over or repointed. Since professional repointing is costly, the students in vocational classes learned the skill, taught it to the rest of the school, and coordinated their job with the building inspector.

Involving students in planning and construction turned out more educational than anticipated. Some of the younger kids became so wrapped up in designing their new classrooms that they started building an auxiliary playhouse. The architects helped them work out a plan and select materials. The contractor supervised construction. The building inspector took the kids to city hall for a building permit. Then, he and the fire marshal made a final inspection — after which, of course, some modifications were required before issuing a certificate of occupancy. At this writing, the students are continuing to exercise their architectural skills. They are converting a pantry in an old house into a darkroom and photography studio and developing designs for an arts and crafts room in the old barn. □ *Write: Warren Schwab, Director, The Learning Center for deaf children, 848 Central Street, Framingham, Mass. 01701.*

A different facility problem at the Green Chimneys School, a private school for 140 emotionally disturbed, delinquent, and learning disabled youngsters in Brewster, New York, involved six wardlike dormitory units where beds were lined against the wall and in which privacy was all but impossible. The school hired an architect who worked directly with the students, studying their needs, eliciting design suggestions, and developing alternative

concepts in living, sleeping, studying, and socializing. Together they came up with movable "environmental living units" a single module containing a bunk bed and two storage units which when dispersed around the large loft dormitory created areas of privacy, traffic, and socialization. Groups of students were responsible for developing graphic themes in various sections of the rooms – a hall of automobiles here, and an animals and habitats gathering place there. The school also hired a contractor willing to work with and train students. As a result, the custom-built couches, carpeting, much detailing, and all interior furnishings were completed by the dormitory's ultimate users. The finished product, according to school officials, is infinitely more habitable for its residents and because of the students' architectural and construction training, is more durable, easily repaired and much better maintained. □ *Write: Samuel Ross, Headmaster, Green Chimneys School, Brewster, N.Y. 10509.*

A private school in Stowe, Vermont, has involved its students in a school-wide project aimed at designing an energy self-sufficient school which will recycle all wastes and produce its own food. The project began when the school obtained land for a new facility in a rural area eight miles from its present site. A private residential school offering an activity centered curriculum providing enlarged learning opportunities to normal, moderately handicapped and learning disabled students, the Stowe School administration decided to turn their architectural problem into an intense learning project for all students and faculty. The school hired a draftswoman to teach a course in design drafting, and a science instructor to teach a course in alternative energy sources. As individual projects, students have visited and collected data from MIT and the University of Massachusetts, contacted regional energy associations, and interviewed architects working on current alternative energy projects.

Mandated to design a new school on relatively isolated property, the Stowe students are not just learning about the energy crisis, they are also designing new facilities to solve the problem. One dyslexic student is designing and building a working model of a totally self-sufficient, solar-heated underground academic building. Another student is designing and building a 5-ft working model of a verticle Axis Darrieus windmill which is meant to provide sustained electrical energy throughout the year for a subterranean solar-heated building. A third student has nearly completed a small pilot methane generator using biodegradable waste which will produce gas for cooking, light and auxiliary heating as well as pathogenically sterile fertilizer for the school's agricultural program, which, to cut costs and improve student nutrition is supplying sufficient organic natural foods to feed the entire school well into the fall. In addition, students are experimenting with toilet facilities with no moving parts and no water which will recycle wastes and produce acceptable fertilizer.

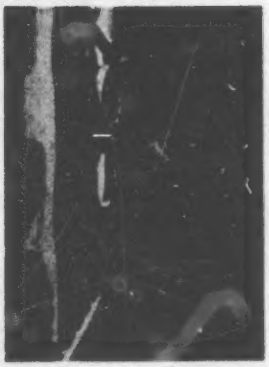
As soon as possible, the school intends to hire architects, contractors, electricians, and plumbers who agree to work with students, teach courses and assist students who will build their new campus. Ultimately, when the Stowe project is complete, both the process and the product should become a national model of student learning, alternative energy sources, professional practice and architectural arts for high school students. □ *Write: Tino O'Brien, Headmaster, Stowe School, Stowe, Vt. 05672.*

Perhaps more than any other art form, applied arts and crafts are a part of the daily lives of handicapped people everywhere. In institutions, group homes, sheltered workshops and schools for the handicapped, ceramics, painting, caning, weaving, fabrics, sculpture, horticulture and animal husbandry are familiar activities. Rather than rely on often untrained art teachers, however, a few schools for the handicapped are either turning their art programs into self-supporting occupational training projects or significantly upgrading their teaching and product quality by employing professional artists to run the program.

The Orange Grove Center for the Retarded, Inc., in Chattanooga, Tennessee, for example, has a vigorous arts program for their severely retarded students which is used both as an end and a means to further development. Students in the art classes produce artwork (end products) which are sold all over the southeastern region. In addition, the students manage, stock, maintain, and clerk a small artwork store that is open to the general public. Here the students learn how to make change, behave as salespersons, take inventory and display salable items. Training in arts classes, however, is the means through which students are gradually prepared for admission into the school's contract workshop. An incorporated, self-supporting factory manufacturing 75,000 pens, mechanical pencils, dried flower arrangements and other art products, the students are trained for placement with a local industry. Although Orange Grove's students are severely retarded, more than 300 graduates have been placed in jobs paying full wages and many now live independently as productive community citizens. ☐ *Write: James Taylor, Orange Grove Center for the Retarded, Inc., 615 Derby Street, Chattanooga, Tenn. 37404.*

In Philadelphia, the Pennsylvania School for the Deaf boasts an equally successful occupational arts program for their profoundly hearing-impaired students. The vocational school program is designed to equip students who are not college bound with a salable trade. Each student is introduced to an exploratory program which offers woodworking and plastics, graphic arts, metalworking and homemaking. After the exploratory program, students choose a specific trade for intense vocational concentration. Trades include business education, data processing, woodworking, commercial foods, power sewing, shoe repair, barbering, machine shop, auto repair and the graphic arts and printing. Perhaps the most modern noncommercial print shop on the East Coast, printing facilities include a compugraphic phototypesetting system, photographic copy cameras, electrostatic platemaking, photomechanical transfer litho platemaking, and four-color offset presses. Graphic arts students produce the school's award-winning yearbook and bimonthly magazine, print materials for various other schools, and often reproduce their own posters and artwork from the school's self-expressive art program. At the end of the course, many students are employed by print shops and publishing companies in Philadelphia or a student's hometown but many go to the National Technical Institute for the Deaf for advanced degrees. ☐ *Write: Philip Bellefleur, Headmaster, Pennsylvania School for the Deaf, 7500 Germantown Avenue, Philadelphia, Pa. 19119.*

Various other schools for the handicapped are significantly upgrading the accessibility and the quality of their art programs and products. Ceramics classes for older adults at The Jewish Guild for the Blind, for ex-



ample, designed a "touch mural" for the building's lobby. Clients were asked to contribute a piece of high or low relief sculpture affixed to brackets screwed into the wall; a tactile "please touch" sign invites passersby to feel and explore the various pieces. Officials report that both blind and sighted visitors are intrigued by the mural and in addition to the 15 pieces already on display, the art classes are continuously preparing new exhibitions. In fact, 10 more pieces have been added since the original mural opened early this year. ☐ *Write: Irving Leos, Director, Public Relations, The Jewish Guild for the Blind, 15 West 65th Street, New York, N.Y. 10023.*

In a similar fashion, the Jewish Braille Institute has a touch and fragrance garden at the rear of their lobby courtyard. Designed by a New Zealand horticulturalist, the garden is open to the public from March to October and contains a large number of flowers and herbs available for handling and clearly marked by large type labels in braille and English. ☐ *Write: Jacob Fried, Director, Jewish Braille Institute, 110 East 30th Street, New York, N.Y. 10016.*

Two private schools for the handicapped have improved their arts programs by soliciting professional artists who either come into the classrooms during school hours to work with teachers and students or onto the school facilities after hours to work directly with children. The Henry Street School housed in a community center in the middle of a city housing project accepts problem, emotionally disturbed, and low-income publicly uneducable children from throughout the city. Local artists, many involved in community development projects, have so improved the curriculum that arts are now integrated into the regular classrooms as part of their everyday activities. In fact, the arts program is so attractive that Henry Street officials exchange courses with other schools for the opportunity to enroll students in Henry Street art classes. ☐ *Write: William Spiller, Henry Street School, 40 Montgomery Street, New York, N.Y. 10002.*

In Los Angeles, the Marianne Frostig Center of Educational Therapy hires afternoon counselors (not teachers, but artists and graduate students) to run a "camp" program for their emotionally and socially maladjusted students. The program includes creative dramatics, puppetry, woodworking, toy making, music, and movement and dance. In addition, the school provides trips to the theater, museums, parks and community activities and the staff is developing kits of materials to take to other schools. The program's primary purpose is to help children learn about themselves and interact socially. ☐ *Write: Robert Barboza, Director, Camp Program, Marianne Frostig Center of Educational Therapy, 5981 Venice Boulevard, Los Angeles, Calif. 90034.*

New arts in auxiliary centers

Along with the movement to resettle moderately handicapped students and inmates into community-based facilities has come the development of new services and facilities to meet the needs of a new handicapped citizen. Although few in number, many of these new auxiliary centers are concerned with creative art and leisure-time activities for groups of children and adults who make little use of existing public arts services.

The Creative Children's Art Center, for example, is a combined school, art studio and exhibition gallery specifically for children with learning disabilities, ortho-

pedic handicaps, vision or hearing impairments, mental retardation, emotional disturbances, hyperactivity, or cultural and economic disadvantages. Housed in an old stucco house owned by the Winnetka (Illinois) community, Creative Children's Art's staff teaches painting, sketching, pottery, ceramics, sculpture, movement and dance, singing, music, and guitar (the latter taught by an orthopedically handicapped artist). Essentially the program is aimed at creative children with special needs and boasts remarkable progress with all their children. As one enthusiastic mother describes it:

> "It's such an ingenious idea. You just feel it when you go in there. It has structure and leadership but it's free and easy. The kids love it, and they learn so much by watching the other children and seeing the fantastic artwork on every wall."

Creative Children's Art gallery is the only permanent exhibition of children's art in the Chicago metropolitan region. Although CCA students are frequent contributors, the center also accepts artwork from the city's nonhandicapped children. Everything on exhibit is either matted or framed and children may mark their work for sale to the public. Interestingly, most visitors cannot differentiate between a handicapped child's art and works by a normal child. In addition, the center sponsors a large outdoor art show once a year at which any young artist – "special" or not – can exhibit and sell their art. According to CCA's director, Pat Atherton,

> "All children are creative and some exceptional children are artistically gifted. For exceptional children, the ability to express themselves freely through art and movement is the most important aspect of this program. Hostility, conflict or anger are acceptable feelings expressed creatively. The value of the development of free-expression in the arts is found in the enhanced status given to the exceptional child through positive recognition and encouragement."

☐ *Write: Pat Atherton, President, Creative Children's Arts, 614 Lincoln Avenue, Winnetka, Ill. 60093.*

On a different theme, an all-volunteer organization in Miami, Florida, established a community center for families with retarded children. Called the Community Habilitation Center, the need for a weekend, after-hours, and leisure activities center stems from the lack of social and recreational affairs which the retarded, their parents and siblings can enjoy together. Thus, a group of parents with retarded and multiple handicapped children persuaded the Dade County government to donate an unused

juvenile facility for a recreation and training center for the retarded. Working together, parents, volunteers and the retarded refurbished the old home and built a plant nursery on the back lot to support the center. Soon, the number of families and retarded children and adolescents swelled. Classes in crafts, quilting, music, dancing, and home economics were added in the evenings, in addition to the regular Saturday work sessions, games, and midday feasts. Working alongside concerned adults and volunteers, the retarded learned skills rapidly and because of the constant flow of products from the nursery and art classes, the center opened a crafts boutique and a plant shop to the public. Anyone who comes to the boutique during lunchtime is in for a special treat. For a dollar, the visitor can join in a gourmet feast prepared by the retarded workers.

Over the last three years, their momentum has not slackened. The center's new goal is aimed at the establishment of a self-sufficient village community for retarded people which will include vocational training, employment, respite care, social and recreational activities, arts and lifetime residences for the retarded who need constant supervision and cannot live in community-based facilities. The village would be administered by a board of directors composed of parents with retarded children working closely with an advisory board of professionals. According to the center's founders:

> "The whole idea is that the villagers would live and work in their village and help keep it going by paying their own way. We don't want our children to go to an institution when we die. Wouldn't it be better if retardates could live and work and socialize within their own community, within this community, and not have to take handouts from public agencies? The feeling of self-respect they will get from making their own way is really what the whole thing is about."

So far, they have come a long way toward their goal. Last year the Community Habilitation Center was certified as a vocational training center and, supported by the Florida State Division of Retardation, recently opened a diagnostic and evaluation clinic in a mobile office trailer donated by a local engineering firm. □ *Write: Michael Faine, Director, Community Habilitation Center, 11350 S.W. 80th Street, Miami, Fla. 33143.*

Along similar but less ambitious lines, there seems to be a national movement afoot to design and build special recreation centers for the handicapped with barrier-free architecture and facilities which provide the handicapped with opportunities for leisure activities, play and the arts. Many such centers, most aimed primarily at sports and recreation, are constructed and operated by local and state departments of recreation. However, a growing number of recreation centers for the handicapped are run by private, nonprofit organizations with a heavy emphasis on the arts.

In November, 1973, what is perhaps the most sophisticated of these private recreation centers opened in San Francisco. Called simply the Recreation Center for the Handicapped, the new center was designed especially to meet the needs of handicapped children and adults.

The single-story building eliminates architectural barriers. Corridors and doorways are wide enough to accommodate wheelchairs. Wall surfaces, floors and furnishings are washable for easy maintenance. Doors are color coded so that the handicapped who cannot read can identify facilities such as toilets, activity rooms, offices, and exits. In the day care area, floors are heated for small children and all rooms have floor-to-ceiling windows for ample light and visibility. In addition, each activity room opens directly onto outside patios. Designed by Hertzka & Knowles, the decor is cheerful and homelike throughout the building — even in the offices and activity areas.

Financed through federal, state and city funds and voluntary contributions, the Recreation Center offers music, creative drama, arts and crafts, and movement and dance to moderately and severely handicapped children and adults from the community. Facilities for the arts include an arts and crafts room (with a large open exhibition terrace adjacent), a music room, a large stage and drama storage room, a multipurpose auditorium, and most important, a double-loaded fireplace around which the participants gather daily for singing and telling stories. In addition, the center has a vigorous outreach program financed primarily through contractual services from the San Francisco Recreation and Park Department, Community Mental Health Services, the San Francisco Foundation, and the federal Department of Social Services. A team of nine outreach staff members plus field work students from San Francisco State College, and handicapped volunteers take books, art materials, games and toys into homes, institutions, rehabilitation facilities, hospitals, nursing homes, and housing authority units for the aged, severely ill, bedfast handicapped, severely retarded and those on the waiting list who cannot join the center's program until there is an opening. The Recreation Center for the Handicapped is also a clearinghouse of information on recreational and arts programs and facilities. Ask for their list of printed materials including an inventory of similar programs in other states. □ *Write: Roberta Schnitzer, Program Director, Recreation Center for the Handicapped, Inc., 207 Skyline Boulevard, San Francisco, Calif. 94132.*

There are various other more specialized recreation/arts/training centers for the handicapped. In the agricultural and horticultural arts, the Bonney Lea Farm in Chester, Nova Scotia, The Ranch in Menomenee Falls, Wisconsin, and the Melwood Horticultural Training Center in Upper Marlboro, Maryland, predominate. All are private, nonprofit organizations founded by parents of retarded children, but each specializes in a different art form. Bonney Lea focuses on cooking, canning, pottery and crafts native to the Nova Scotian heritage. In fact, its woodworking program turns out many skilled reproductions of early maritime furniture. At Melwood plants are emphasized. Retarded students are trained in floral design, greenhouse gardening, and landscaping and grounds maintenance. Forty percent of Melwood's support comes from the students' work in these areas. The center runs a year-round florist shop and nursery, and other earnings come from the trainees' landscaping and grounds maintenance work on both public and private property. At The Ranch, private and public school students train in carpentry, building techniques, horsemanship and animal training in addition to extensive agricultural programs. The objective at all three centers is to develop their handicapped students' individual skills to the point where they can obtain jobs in the community and all three centers find

permanent employment for a high proportion of their students each year – many of whom live in the community independently as full citizens. ☐ *Write: David Chisling, Director, Bonney Lea Farm for Handicapped Children and Adults, P.O. Box 560, Chester, Nova Scotia, Canada.* ☐ *Write: Earl Copus, Executive Director, Melwood Horticultural Training Center, 5606 Dower House Road, Upper Marlboro, Md. 20870.* ☐ *Write: James Gonwa, Executive Director, The Ranch, North 8581 Maple Road, Menomenee Falls, Wis. 53051.*

Other recreational auxiliary centers for the handicapped feature the equestrian arts. Since the 1920s, riding clinics for the handicapped have been growing in number and expertise in England, Ireland, Germany, France, Holland, and Sweden. In the United States, it was not until the late 1960s that therapists and educators began to establish permanent equestrian programs and facilities for the handicapped. Today, the two primary centers in the United States for handicapped equestrian arts are the Cheff Center for the Handicapped in Augusta, Michigan, and the Rock Creek Park Horse Center in Washington, D.C. – two radically different auxiliary service centers for the handicapped. The Rock Creek Center is a private concession in a public riding stable owned by the U.S. Department of the Interior. The program is funded by the National Park Service and the special education department of the District of Columbia public school system. Public school students are bused in once a week for a two-hour riding and grooming session. Although the program is predominately riding therapy, the center's director, Bob Douglas, now teaches vaulting and show riding to the advanced students. In contrast, the Cheff Center, the world's largest riding academy for the handicapped, is a nonprofit tax-exempt organization supported by a public foundation and public subscriptions. Public school students (222 per week) are provided free hour and a quarter sessions once a week and many are involved in advanced vaulting and showmanship. In fact, eight severely handicapped Cheff students will compete in the 1975 special olympics for the handicapped. The Center's director, Lida McCowan, was largely responsible for establishing the North American Riding for the Handicapped Association, which provides a free list of more than 30 similar programs in other states. She has also invented a saddle which enables even the most severely quadriplegic to enjoy the new found freedom and heady mobility never before possible to people imprisoned in wheelchairs. ☐ *Write: Robert Douglas, Director, Rock Creek Park Horse Center, Military and Glover Roads, N.W., Washington, D.C. 20015.* ☐ *Write: Lida McCowan, Executive Director, Cheff Center for the Handicapped, 8479 North 43rd Street, Augusta Mich. 49012.*

See also: *A Training Manual on Therapeutic Riding for the Handicapped* ($5.19), available from the Cheff Center, 8479 North 43rd Street, Augusta, Mich. 49012. A film, *"Exceptional Children"* ($30, $25 returned on receipt of the film), available from the North American Riding for the Handicapped Association, Box 100, Ashburn, Va. 22011.

Although this report does not deal with the growing trend toward art therapy for the handicapped, it must be made clear that there are no sharp definitions as to when an activity is art, education, recreation or therapy. Most likely, any activity involving art and the handicapped has elements of all these disciplines. The objective

of arts therapy as a separate discipline in the field of mental health is diagnosis, remediation, and self-expression or self-actualization – not process, product or performance. Thus professional art therapy usually takes place in hospitals, clinics, rehabilitation centers or the new community outpatient treatement centers such as the Philadelphia Child Guidance Clinic, or the Pittsburgh Child Guidance Center. Nevertheless, arts therapists are now working in schools for the handicapped and in public school special education programs. In addition, some schools of art, such as the Hockstein School of Music, are developing arts therapy programs for the handicapped and teacher training programs for registered arts therapists. There are even new organizations whose sole purpose is arts therapy. The Creative Arts Rehabilitation Center in New York City is a prime example. For further information about the various forms of art therapy write to the following organizations:

American Physical Therapy Assn.,
Washington, D.C. 20005

National Rehabilitation Assn.,
Washington, D.C. 20005

Adventures in Movement (AIM) for the Handicapped Inc.,
Dayton, Ohio 45420

American Dance Therapy Assn.,
Columbia, Md. 21044

Music Educators National Conference,
Vienna, Va. 22180

Council for Exceptional Children
Reston, Va. 22091

National Therapeutic Recreation Society,
Arlington, Va. 22209

Therapeutic Recreation Information Center,
University of Oregon, Eugene, Ore. 97403

National Association for Music Therapy,
Lawrence, Kans. 66044

National Art Education Association,
Reston, Va. 22091

American Art Therapy, Assn.,
Houston, Tex. 77025

National Council for Therapy & Rehabilitation Through Agriculture, Inc.
Upper Marlboro, Md. 20870

National Council for Therapy & Rehabilitaiton Through Horticulture
Mt. Vernon, Va. 22121

American Alliance for Health, Physical Education and Recreation
Washington, D.C. 20036

American Occupational Therapy Assn.,
Rockville, Md. 20852

In the more traditional auxiliary centers for the handicapped, the arts are a means of employment for handicapped adults who live in the community. The Harlan Workshop Enterprises, for example, is a nonprofit sheltered workshop in a converted bus station which trains and employs the multiple handicapped. Using furniture product designs and prototypes developed by the now defunct Handex Corporation, the Harlan Workshop combines the skills of Appalachian craftsmen with an indigenous wormy chestnut wood which only grows in the Southeastern Kentucky area to develop a growing home furnishings industry operated by the handicapped. The workshop has five training and employment programs: reupholstery, home economics, woodworking and refinishing, furniture manufacturing, and staining and painting. The state department of rehabilitation pays the trainees' tuition and more than 70% of the graduates are placed in either local industries or as independent furniture repairmen and builders. The remaining trainees are employed in the workshops furniture production program. □ *Write: Robert Howard, Harlan Workshop Enterprises, Inc., P.O. Box 347, Harlan, Ky. 40831.*

Rather than rely on a program based in a single center, various other auxiliary services have instituted outreach programs which link the handicapped to careers in the arts. New York City Public Schools' Placement and Referral Center for the Handicapped places students in government jobs. Many are employed in various botanical gardens as horticultural trainees, in public parks as landscaping and grounds personnel, or in summer camps as arts and crafts counselors. In Masachusetts a more ambitious program called Project CAREER, under the Massachusetts Department of Education's Division of Occupational Education, identifies skills related to 122 occupations and codes each skill for its potential attainability by persons of different handicapped areas and levels. This computer-based occupational information is used as building blocks and models for curriculum development. Using the Project CAREER data, educators can remove traditional stereotypes and false ceilings on achievement, and handicapped persons can begin to consider and prepare for a wider array of more meaningful careers. In the arts, some of the occupational areas include: landscape gardening, design and technology, and ornamental horticulture; media technology; drafting; various building trades; fashion coordinating; marine technology; commercial advertising, window trimming, and illustration; photography and copywriting. ☐ *Write: Bruce Wood, Coordinator, Placement and Referral Center for the Handicapped, Room 623, 131 Livingston Street, Brooklyn, N.Y. 11201.* ☐ *Write: Vincent Lamo, Director, Project CAREER, 301 North Main Street, Randolph, Mass. 02368.*

The interstate home crafts program is another outreach occupational training project for the handicapped. Run by state chapters of the National Easter Seal Society, in Wisconsin, Iowa, Missouri and Kansas, the program sends art teachers into the homes of bedfast elderly, handicapped, and physically ill people who are not employable in the community. Providing tools, materials, and teaching aids to active clients, instructors help the homebound develop skills in order to manufacture clothing, toys, quilts, utensils, ceramics, and crafts products. Each craftsman then sets a price for the products which are sold in retail outlets run by the State Easter Seal chapter. In Iowa, the retail outlet is a large van which travels across the state selling homecraft wares in fairs, bazaars, and local markets. Among the various homecrafts programs, the Wisconsin project is the most sophisticated. They have operated for more than 35 years and now have six retail outlets in various cities. ☐ *Write: Marion Jones, Project Coordinator, Homecraft Programs, Easter Seal Society for Crippled Children and Adults of Wisconsin, Inc., 2702 Monroe Street, Madison, Wis. 53711.*

Volunteer Service Photographs, Inc. (VSP) is another arts outreach program dedicated to teaching photography and photo oil coloring to physically and mentally handicapped, underprivileged youths, senior citizens, ex-offenders and drug rehabilitation participants. The program enlists volunteer instructors trained by VSP who take photographic equipment, supplies and materials to more than 50 hospitals, schools for the handicapped, drug rehabilitation, senior citizen, and youth centers in the Metropolitan New York area. Funded chiefly by individual donations and proceeds from benefits, VSP helps young, handicapped and senior citizens develop their photographic skills and the accompanying feeling of pride in self-achievement occasionally sparking new careers in professional photography. ☐ *Write: Jean Lewis, Executive Director, Volunteer Service Photographers, Inc., 111 West 57th Street, New York, N.Y. 10019.*

Two additional outreach service programs are important to mention here because they make the performing arts accessible to people who otherwise would have no experiences in the arts even if there were no architectural, social, and academic barriers to the handicapped. Founded the same year, both programs although quite different in scope and target audiences are involved with performances which reach out to audiences captive in hospitals, institutions, and centers for the handicapped. Theatre in a Trunk, Inc., so named because the company's style centers around an old-fashioned trunk which holds all of the properties necessary to the play, is a lively ensemble of professional actors, musicians, dancers and educators who create and perform unique theater pieces for children ages 4 to 14 in schools, community centers, hospitals, day care centers, national parks, housing projects and for private groups. A nonprofit organization supported by The New York State Council on the Arts, the National Endowment for the Arts, National Park Service, New York City Housing Authority and various foundations, churches and private donations, the company presents entirely original children's plays and historical interpretations in any space large enough for theater in the child's own environment. Children sit around three sides of an imaginary, therefore barrier-free, stage and the plays are designed to involve the children physically in the action. To date, the response from children's hospitals, institutions and especially from the children themselves is exceptionally enthusiastic. Last year, Theatre in a Trunk reached over 7,000 children involving each one in a performance with direct access to the performers. ☐ *Write: Sonia Gluckman, Director, Theatre in a Trunk, Inc., 12 West 11th Street, New York, N.Y. 10011.*

Hospital Audiences, Inc., a New York based nonprofit organization with 15 affiliate chapters in cities across the United States, has two different outreach programs which enable the institutionalized handicapped and elderly to participate in the arts as spectators. In one program, HAI solicits complimentary tickets to current cultural, sports and recreational events including movies, concerts, and exhibitions. With volunteer theater escorts and appropriate transportation, the HAI chapters make cultural affairs a regular activity for virtually hundreds of thousands of people normally locked away from society's mainstream. For those unable to attend community events for medical, legal or logistical problems, HAI's second program books benefit performances (and in some cases hires performing artists) for regular productions in institutions, prisons, and nursing homes. Most fully developed

in New York, a third, interagency program provides participatory creative arts workshops – currently in painting, sculpture, poetry, music, and crafts – to various institutional groups. In addition, HAI gathers and distributes resource kits of fine arts reference books, museum catalogues, reproductions, and original works of art. Founded in 1969 by Michael Jon Spencer, a concert pianist and college music teacher, the HAI project reaches 250,000 people each year – probably the most widespread, broadly based program for making the arts accessible to the institutionalized handicapped. □ *Write: Michael Jon Spencer, Executive Director, Hospital Audiences, Inc., 1540 Broadway, New York, N.Y. 10036.*

Cooperative interagency arts

Obviously, the handicapped, as a discrete segment of the general population, represents a widely dispersed, multi-differentiated group of people. Unlike other groups, handicapped people live, learn and work in a huge variety of environmental settings – schools, homes, hostels, day care centers, community training facilities, rehabilitation centers, hospitals and institutions. Moreover, the handicapped have wide differences in abilities, disabilities, acumen, and interests.

Clearly, no single agency or profession working alone can make the arts accessible to all handicapped people. Instead, there is an urgent need for artists, school officials, teachers, architects, planners, therapists, physicians, psychologists, government officials, and the handicapped themselves working together to build new systems of service which reduce the barriers to arts and improve the general over-all accessibility. Although there exists no present interagency arts program which even remotely reaches all their handicapped constituency, the following programs represent a genesis of new cooperative systems.

In an effort to reach out to widely dispersed handicapped children, a few museums and local arts agencies have established mobile arts programs in cooperation with public school districts. In Atlanta, for example, the High Museum of Art created the Georgia Art Bus, a tri-colored, converted school bus carrying original artworks to schools in farmlands and small towns all over Georgia. During the two to three weeks an exhibit is on view (usually in the school cafeteria, library or corridors), the museum sends an artist-in-residence to spend a week in each school conducting workshops, classes, and demonstrations. Working with teachers, principals, and art instructors, the artist-in-residence tries to leave an appreciation of the arts plus a continuing arts program which reaches into the classroom and relates the arts to the curriculum and to life. Although the program is not designed specifically for handicapped children, the Art Bus carries original works by Georgia artists to the small school districts and backwater educational centers where the handicapped as a rule, already attend neighborhood schools. □ *Write: Sharon Donahue, Art Bus Coordinator, High Museum of Art, 1280 Peachtree Street, Atlanta, Ga. 30309.*

Rather than rural schools, the Birmingham Museum of Art aims their Artmobile, a 10-ft-long Dodge van, at culturally and educationally deprived inner-city children. Jointly funded by the museum and Birmingham City Schools, the Artmobile carries a large number of artifacts from the museum's collection carefully chosen for their appeal to elementary schoolchildren, always including several items sturdy enough for the children to handle.

The van's "driver," in fact a district schoolteacher with a B.A. in art, explains the exhibit and personally invites the children and their teachers to more extensive programs at the Museum of Art – thus bridging the gap between museum and school. □ *Write: Becky Black, Art Education Office, Birmingham Museum of Art, 2000 Eighth Avenue, N., Birmingham, Ala. 35203.*

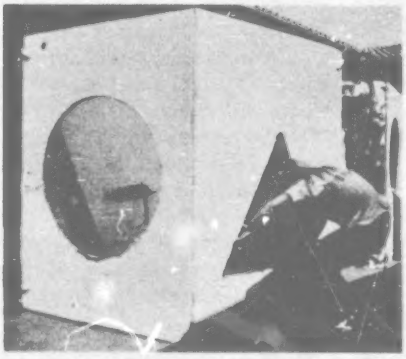
A similar program in San Francisco carries the process one step farther. Called Trip Out Trucks, the program (sponsored by the deYoung Museum Art School in cooperation with public schools and funded by the Junior League, the California Arts Commission, the Museum Society, and the National Endowment for the Arts) interviews teachers, develops individualized programs, visits each school four times once a week in one of two old rainbow painted vans containing paints and arts supplies and staffed by two artists – one skilled in the visual arts and another in music, dance or drama, and leaves trunks containing topical materials and programs for follow-up classes in jewelry, ceramics and puppetry. Adding an extra dimension to the program, the art school selects and trains volunteer apprentices who assist the Trip Out Truck personnel, develop performing arts projects with the children, and go into schools to help teachers use the follow-up materials. Although all city schools are eligible, the vans plus apprentices also run specialized programs in schools for the handicapped and frequently visit the Recreation Center for the Handicapped. □ *Write: Eileen Lew, Trip Out Truck Program, deYoung Museum Art School, Golden Gate Park, San Francisco, Calif. 94118.*

In Oklahoma, The Rainbow Fleet is the mobile unit of the Creative Education Laboratory, a joint project of Oklahoma City University, and the Arts Council of Oklahoma City. Deriving its support from a variety of sources in addition to funds provided by the major sponsors: the state Department of Social and Rehabilitative Services, the Community Action Program of Oklahoma City, the Junior League, Casady School and the Oklahoma County Libraries the three-bus fleet (all stretch Econovans) provides continuous support and stimulation to parents of handicapped children and early childhood education programs serving low-income families. The three buses, called The Magic Blue Bus, The Peppermint Surprise, and The Sunshine Express, offer two basic services: a continuous inservice training program for the adults who teach and care for young children, and a constant environmental enrichment program for the homes and schools of these children by lending quality art and educational materials from the vans. The buses' magic appeal comes from the skills of Oklahoma City artists who have designed a magnetized fabric system that is applied to the vans' metal surfaces. Thus, from month to month, the buses arrive at homes and day care centers completely redecorated in colors and textures that please and stimulate young children.

Although each bus carries similar materials – books from the county library, arts materials (including original prints and graphics) plus tape cassettes of music programs purchased through the Oklahoma Arts Council, and educational materials through Oklahoma City University, the three vans have separate clients. The Magic Blue Bus concentrates on day care centers and family day care homes. The Peppermint Surprise services a selected number of handicapped children (including blind, deaf and mentally retarded) through the university's child study center and demonstration classes in the Casady School. The Sunshine

Express visits parents and children in their homes focusing on infants and toddlers enrolled in the federally funded Child and Family Resource Program (CFRP) and on preschool children enrolled in Home Start clusters. Unlike other inservice programs, The Rainbow Fleet does not just show, tell, and leave. Instead, the staff encourages participants to check out quality materials for two-week periods and comes back regularly to resupply and work out new techniques. The program's purpose is to catch and screen children at the earliest level in order to develop language and perceptual abilities in the arts at the developmental stage of their lives. ☐ *Write: Margaret Loeffler, Creative Education Laboratory, Box 20390, Oklahoma City, Okla. 73120.*

The Family Learning Program in Santa Fe Springs, California is another interagency, early intervention project using the arts as a developmental and preventive technique. Operating in backyards, community centers, schools and churches, the program teaches mothers how to build perceptual toys, playgrounds, and educational tools from free, inexpensive, or cast-off materials, how to use these to reinforce perception, language and eye-hand coordination and, at the same time, how to spot potential reading and learning problems early enough for remedial training. Predominately, the program serves the Mexican-American community where the incidence of perceptual and learning disabilities is five times greater than the national average. From the mothers' highly motivated carpentry, some exciting new facilities have been developed



to heighten perceptual abilities and strengthen good reading habits – including sensory playgrounds, eye-hand toys, balance boards, and shape mazes. Parents are encouraged to take their creations home or to build new facilities in their own backyards. The program is licensed to operate as a combined bilingual, bicultural day care and family learning center receiving its support from the Rio Hondo Area Action Council and the Whittier Public School's adult education department. ☐ *Write: Edna Hansen, Director, Family Learning Center, 231 Grandview Avenue, Sierra Madre, Calif. 91024.*

Although the financing tends to come from a single source, two local departments of parks and recreation have established innovative, interagency community arts and recreation programs for the handicapped. In Seattle, Washington, the city parks and recreation department offers over 80 art and recreation programs for more than 39,000 local handicapped children and adults each year. The program is assisted by a citizen's advisory group composed of parents of handicapped children, public school officials from the special education department, officials from organizations for the handicapped, volunteers, and representatives from the state department of mental health and mental retardation. Using facilities in dozens of public centers (including a theater and arts center for handicapped movement and dance in a converted bathhouse, and a recreation and arts center in a converted barn on an overnight camp site), the program can afford to be comprehensive because it coordinates activities with more than 25 different local agencies – schools, hospitals, convalescent homes, rehabilitation centers, universities and associations for the handicapped. Most agencies contribute either facilities, staff, volunteers or materials to the overall program. Because state institutions are resettling the handicapped in community-based facilities and because people are seeking equal opportunities for their handicapped relatives, Seattle's handicapped population is increasing. Anticipating the needs of their handicapped constituency, the city department of parks and recreation intends to expand its program and personnel 25% over the next two years. □ *Write: Peter Guzzo, Coordinator, Programs for Special Populations, Seattle Department of Parks and Recreation, 100 Dexter Avenue, N., Seattle, Wash. 98109.*

In New York, the ANCHOR Program (Answering the Needs of Children with Handicaps through Organized Recreation) is a Town of Hempstead parks and recreation sponsored comprehensive program for handicapped youngsters (6 to 21) supported only by tax revenues. There are no fees or charges for any participant. During the winter program, the ANCHOR project, with special agreements, utilized classrooms, gymnasiums, swimming pools, auditoriums, theaters, athletic fields and art, music, shop and home economics facilities in parks, community centers, commercial establishments, and public and private schools. Special arts programs include arts and crafts, and music and dance. In addition, ANCHOR frequently provides transportation for the handicapped to local cultural events. In summer, the program shifts to Camp ANCHOR, a town park at the ocean-front Lido Beach designed specifically for handicapped children. Under 32 tents alongside obstacle courses, swimming pools, playgrounds, camp sites and picnic shelters all interconnected by barrier-free boardwalks, specialists in arts and crafts, home economics, music, dance, gymnastics and physical education design individualized programs for children with all varieties of handicaps.

The ANCHOR Program began in 1968 serving 75 children in one central facility. In four years, ANCHOR grew into three school facilities and the summer day camp serving 350 children. Since then, the number of facilities and participants has risen steadily. According to local education agencies, there are more than 2,300 handicapped children living within the town limits and many handicapped adults are clamoring for a similar program. Therefore, town officials are planning a year-round, barrier-free environmental resource center with theaters, courtyards,

gardens, nature trails, arts and crafts areas and display spaces, plus recreational facilities for handicapped and normal children and adults. When the project is completed in 1976, the environmental resource center should become the source of a new way of life for literally thousands of Hempstead citizens. □ *Write: Douglas Baylis, Supervisor, ANCHOR Program, Department of Parks and Recreation, Town Hall Plaza, Hempstead, N.Y. 11550.*

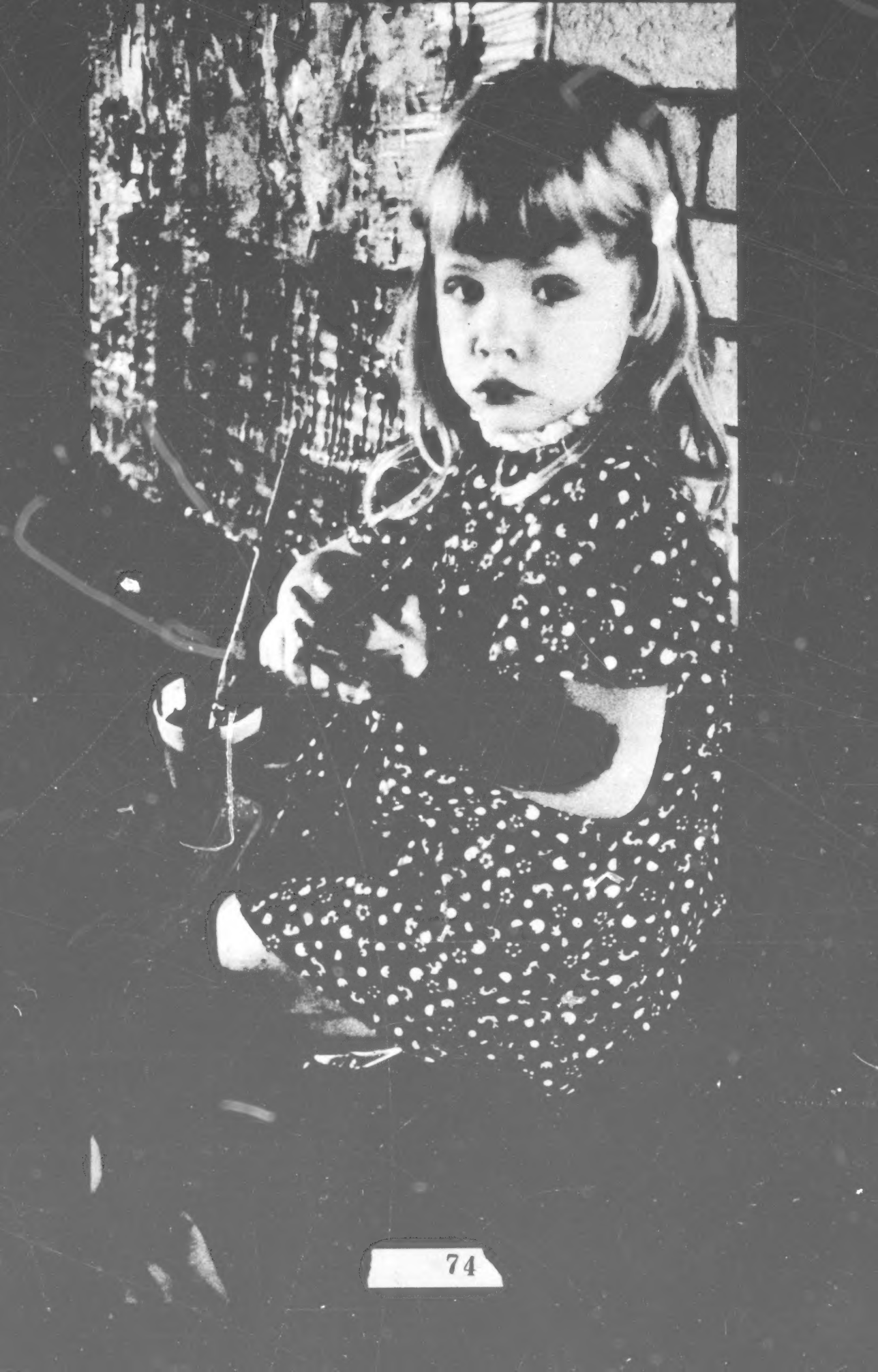
Unfortunately, there are very few interagency cooperative arts programs for the handicapped, especially at the regional or state level. Most such programs serve only a selected constituency, i.e., children, or operate within clearly defined boundaries, i.e., city limits – leaving those outside with little opportunity to enjoy the beauty and the insights into human experience that only the arts can impart.

Conclusion

At this writing, arts for the handicapped is not a primary legislative or judicial concern. Most laws and court decisions deal with the handicapped person's right to public education, employment, due process, public service, and community housing. Nevertheless, the issue of equal access to cultural facilities and programs lies just under the surface of a burgeoning civil rights campaign aimed at providing equal opportunity to all handicapped citizens.

Making the arts accessible to the handicapped is not simple; it is not just a question of ramps and appropriate facilities, expanded staffing or more money. Rather, arts for the handicapped requires many levels of affirmative action: law enforcement, removal of architectural barriers, utilization of available technology, dissemination of vital information, and the invention of new programs and facilities. Moreover, the problem involves many different constituencies: the public, the handicapped, and the legal, arts, education, and human service professions. Thus, the resources of already established programs and services must be redeployed to meet new needs. This also implies that new models of interagency service delivery systems must be developed in order to provide integrated educational, recreational, health, and cultural services to every citizen.

Today, a handicapped person's choice of accessible arts activities is very limited. Most cinemas, studios, churches, schools, museums, theaters and sports arenas are simply not useful to deaf, blind, and physically handicapped people. Many also have restrictions against the mentally retarded and emotionally disturbed. Nevertheless, the arts can and should be made accessible to all handicapped people. Among the many programs described in this report, within the successful facilities now operating, and including the new interagency service delivery systems, the technology and the expertise already exist in order to offer all the arts to everybody.



Appendices

The following is a partial list of nature centers, trails, and fragrance gardens provided courtesy of the Center for Environmental Communications and Education Studies, 602 State Street, The University of Wisconsin, Madison, Wis. 53706.

Nature centers and trails

Catalina Desert Trail, Tuscon, Ariz. 85715
Shady Rest Nature Trail, Mammoth Lakes, Calif. 93546
Whispering Pines Nature Trail, Mentone, Calif. 92359
Muir Woods Nature Trail, Mill Valley, Calif. 94941
Revelation Trail, Orick, Calif. 95555
Roaring Fork Nature Trail, Aspen, Colo. 81611
Genesee Park Braille Trail, Denver, Colo. 80202
Trout Pond Recreation Area, Crawfordville, Fla. 32302
Fernbank Science Center, Atlanta, Ga. 30307
Nature Trail of the Chicago Horticultural Society Botanical Garden, Glencoe, Ill. 60022
Whispering Woods Nature Trail, New Carlisle, Ind. 46552
Handicapped Children's Nature Study Center, Davenport, Ia. 52802
Buttonbush Trail, Eastham, Mass. 02663
Cedar Ridge Nature Trail, Westwood, Mass. 02090
Spruce Hill Nature Trail, Westwood, Mass. 02090
DeWaters Education Center & Touch and See Nature Trail, Flint, Mich. 48506
Wood Lake Nature Center, Richfield, Minn. 55423
Braille Garden and Trail, Great Falls, Mont. 59401
Allaire State Park Braille Trail, Farmingdale, N.J. 07727
Shoal Harbor Marine Museum and Nature Trail, Fort Monmouth, N.J. 07737
Trail Side Museum and Nature Science Center, Watchung, N.J. 07060
La Pasada Encantada, Cloudcroft, N. Mex. 88317
Cienega Canyon Nature Trail for the Physically Handicapped, Albuquerque, N. Mex. 87103
Nature Trail for the Visually Handicapped, East Aurora, N.Y. 14139
Wellesley Island State Park, Alexandria Bay, N.Y. 13607
Nature Science Center/Reynolds Village, Winston-Salem, N.C. 27106
Highbrook Lodge Nature Trails, Chardon, Ohio 44106
Feel of the Forest Braille Trail, Miamitown, Ohio 45231
John J. Tyler Arboretum Nature Trail, Lima, Pa. 19060
Oerwood Braille Trail, Mt. Wolf, Pa. 17347
North Park and South Park Nature Trails, Pittsburgh, Pa. 15239
Reading Nature Trail, Reading, Pa. 19601
Clemson University Ornamental Area, Columbia, S.C. 29631
Discovery Trail, Barnwell State Park, Columbia, S.C. 29202
Greer Island Nature Center, Fort Worth, Tex. 76135
Tribble Fork Reservoir, Provo, Ut. 84601
Gulf Branch Nature Center, Arlington, Va. 22203
Massanutten Visitor Center & The Lion's Tale, Harrisonburg, Va. 22801
Trail for the Blind, Petersburg, Va. 23803
Gallistel Woods Nature Trail, Madison, Wis. 55711
Three Sense Nature Trail, Yellowstone National Park, Wyo. 82190
Touch and See Nature Trail, Washington, D.C. 20002

Fragrance and botanical gardens

Helen Keller Fragrance Garden, Talladega, Ala. 35160
Los Angeles State and County Arboretum, Arcadia, Calif. 91008
Garden of Fragrance, San Francisco, Calif. 94122
Denver Botanic Garden, Denver, Colo. 80206
Callaway Gardens, Pine Mountain, Ga. 31822
Foster Botanic Gardens, Honolulu, Hawaii 96817
Morton Arboretum, Lisle, Ill. 60532
Arnold Arboretum, Jamaica Plain, Mass. 02130
Missouri Botanical Gardens, St. Louis, Mo. 63110
Brooklyn Botanic Garden, Brooklyn, N.Y. 11225
New York Botanical Garden, Bronx Park, N.Y. 10458
Planting Fields Arboretum, Oyster Bay, N.Y. 11771
Eastman Park Arboretum, Rochester, N.Y. 14620
Asheville-Biltmore Botanical Gardens, Asheville, N.C. 28803
Sarah P. Duke Memorial Park, Durham, N.C. 27706
Mt. Airy Arboretum, Cincinnati, Ohio 45202
Kingwood Center, Mansfield, Ohio 44906
Holden Arboretum, Menton, Ohio 44060
Secrest Arboretum, Wooster, Ohio 44691
Longwood Gardens, Kennett Square, Pa. 19348
Morris Arboretum, Philadelphia, Pa. 19118
Arthur Hoyt Scott Horticultural Foundation, Swarthmore, Pa. 19081
Tennesee Botanical Gardens, Cheekwood, Nashville, Tenn. 37205
Fort Worth Botanic Gardens, Forth Worth, Tex. 76107
Fragrance and Texture Garden, Norfolk, Va. 23518
University of Washington Arboretum, Seattle, Wash. 98105
Alfred Borner Botanical Garden, Hales Corner,Wis.53130

Resource organizations

The following agencies are interested in removing architectural barriers to the handicapped. Each of these agencies has produced literature on the subject.

The Architectural Barriers Committee
6473 Grandville Avenue
Detroit, Mich. 48228

Committee on Barrier Free Design
President's Committee on Employment of the Handicapped
Washington, D.C. 20210

Committee to Eliminate Architectural Barriers
713 County Office Building
White Plains, N.Y. 10601

Division of Research & Training Grants
Vocational Rehabilitation Administration
Dept. of HEW
Washington, D.C. 20202

Dog-gone Curbs
722 Capitol Mall
Sacramento, Calif. 95814

Handicapped Children's Education Project
Education Commission of the States
300 Lincoln Tower, 1860 Lincoln Street
Denver, Colo. 80203

National Center for a Barrier-Free Environment
7315 Wisconsin Avenue, N.W.
Washington, D.C. 20014
(Ask for *Barrier-Free Design: A Selected Bibliography*) ($6.00)

National Congress of Organizations of the Physically Handicapped, Inc.
7611 Oakland Avenue
Minneapolis, Minn. 55423

The National Easter Seal Society for Crippled Children and Adults
2023 West Ogden Avenue
Chicago, Ill. 60612
(Ask for their brief checklist of publications relating to architectural planning for the physically handicapped)

Paralyzed Veterans of America
The Architectural Barrier Coordinator
Write: James Jochim
30408 Ford Road
Garden City, Mich. 48135

Rehabilitation Services Administration
330 C Street, S.W.
Washington, D.C. 20201

State Information Clearinghouse for Exceptional Children
The Council for Exceptional Children
1920 Association Drive
Reston, Va. 22091

The State University Construction Fund
194 Washington Avenue
Albany, N.Y. 12210

Rehabilitation Education Center
University of Illinois
Champaign, Ill. 61820

Selected bibliography on barrier-free design

The following publications are especially useful when designing facilities for the physically handicapped.

Architects and Designers Handbook to Barrier-Free Design available (free) from Access Chicago, Rehabilitation Institute of Chicago, 345 E. Superior, Chicago, Ill. 60611

An Illustrated Handbook of the Handicapped Section of the North Carolina State Building Code, available ($1.50) from North Carolina Department of Insurance, P.O. Box 26387, Raleigh, N.C. 27611

Architectural Facilities for the Disabled, Netherlands Society for Rehabilitation, The Hague, The Netherlands

Barrier-Free Design: Accessibility for the Handicapped available ($1.50) from Institute for Research and Development in Occupational Education, The Graduate School and University Center of the City University of New York, 1411 Broadway, New York, N.Y. 10018

Barrier-Free Site Design, available ($2.30) from the Superintendent of Documents, Washington, D.C. 20025

Designing for the Handicapped, George Godwin Limited, 4 Catherine Street, London WC2

Design of Barrier-Free Facilities, Part 4, Section 4.12 of Technical Handbook for Facilities Engineering and Construction Manual, available (free) from Office of Architectural and Engineering Services, OFEPM/DHEW, 330 Independence Avenue, S.W., Washington, D.C. 20201

Designing for the Severely Handicapped available from Architects & Building Branch, Technical Reference Library, Department of Education and Science, Curzon Street, London W1Y 8AA

Environmental Design: New Relevance for Special Education available ($3.85) from The Council for Exceptional Children, 1920 Association Drive, Reston, Va. 22091

Into the Mainstream: A Syllabus for a Barrier-Free Environment available (free) from the American Institute of Architects, Department of Design, 1735 New York Avenue, N.W., Washington, D.C. 20006 Attention: Lynn Arillo

Making Facilities Accessible to the Physically Handicapped, Performance Criteria, 1967, available (free) State University of New York, State University Construction Fund, Albany, N.Y. 12210

Planning Buildings for Handicapped Children by Ivan Nellist, available from Crosby, Lockwood & Sons Ltd., 26 Old Brompton Road, So. Kensington, London, England, S.W.7

Planning Facilities for Physically Handicapped Children available ($1.00) from The School Planning Laboratory, College of Education/The University of Tennessee, Knoxville, Tenn. 37916

Role of the Physical Environment in the Education of Children with Learning Disabilities, a position paper developed by Michael J. Bednar and David S. Haviland of the Center for Architectural Research, Rensselaer Polytechnic Institute, Troy, N.Y. 12181

Some Notes on Design Principles for Persons Using Wheelchairs, Publication #111, available ($1.50) from Center for Environmental Research, School of Architecture & Environmental Arts, University of Oregon, Eugene, Ore. 97402

Standards for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped available ($2.75) from American National Standards Institute, 1430 Broadway, New York, N.Y. 10018

The Therapeutic Effect of Environment on Emotionally Disturbed and Mentally Subnormal Children by Kenneth Bayes; write Sandra Francklin, Information Officer, Center on Environment for the Handicapped, 86 Newman Street, London W1P 4AR, England

Wheelchair Interiors Publication No. E52 available ($1.50) from The National Easter Seal Society for Crippled Children and Adults, 2023 West Ogdon, Chicago, Ill.

Publications

Arts and the Handicapped/An Issue of Access is one of several publications prepared by EFL with support from the Architecture + Environmental Arts Program, National Endowment for the Arts.

The Arts in Found Places An extensive review of where and how the arts are finding homes in recycled buildings, and in the process often upgrade urban centers and neighborhoods. Over 200 examples, with special emphasic on "do's and don'ts." (January, 1976) $5.00

Hands-On Museums/Partners in Learning Provides case studies of fourteen museums that cater especially to youth by providing programs and facilities which involve visitors as participants in learning. Also reviews the impact of this philosophy on planning, staffing, and constituencies. (1975) $3.00

New Places for the Arts/A Catalogue of Examples Provides descriptions of about 100 museums, performing arts centers, theaters, visual arts centers, and multi-use centers built especially for these purposes. Includes listings of the various professional consultants involved. (Publication January, 1976) $3.00

The Place of the Arts in New Towns Reviews approaches and experiences for developing arts programs and facilities in new towns and established communities. Gives insights and models for the support of the arts, including the role of the arts advocate, the use of existing space, and financing. (1973) $3.00

Reusing Railroad Stations Reports the plight of abandoned stations and the rich architectural and civic heritage they represent. It advocates their reuse for combined public and commercial purposes, including arts and educational centers, transportation hubs, and focal points for downtown renewal. Extensively illustrated. (1974) $4.00

Reusing Railroad Stations Book Two Furthers the advocacy position of the first book and describes some of the completed and underway conversions in more detail. A large section of the book explains some of the intricacies of financing that a nonprofit group would have to understand before successfully developing a railroad station. (1976) $4.00

A special issue of EFL's newsletter Schoolhouse describes how schools are sharing space with the performing arts community to the mutual benefit and betterment of both. (September 1975; free of charge.)

For additional information, and to order reports, write to:
Educational Facilities Laboratories
850 Third Avenue, New York, N. Y. 10022

All orders must be prepaid. Make checks payable to Educational Facilities Laboratories, Inc. Orders of ten or more copies of one report receive 25% discount. No returns.

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